

RNI 53380/91 December 2025

# Sailor Today

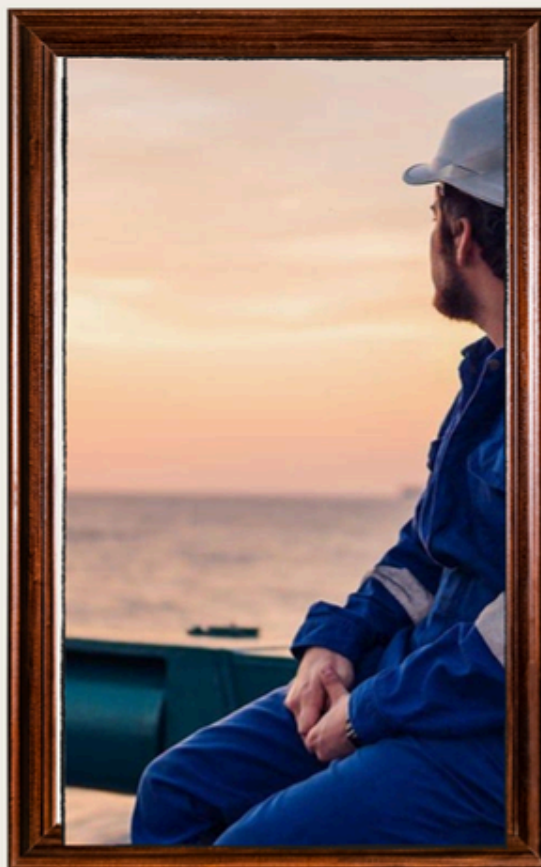
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*Ports  
will change.  
Purpose  
stays.  
Happy New  
Year.  
Here's to  
safe sailings  
and sweeter  
homecomings  
in the year  
ahead.*

20  
26

# Sailor Today

Your Unmissable Dose of Vitamin SEA

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## EDITOR'S DESK

### Seen at Last

For years, seafarers kept the world moving quietly, reliably, and largely unnoticed. In 2025, that began to change.

When seafarers were formally recognised as key workers, it was more than a label. It was a correction. During the darkest days of COVID, when ships sailed on while crews were stranded and contracts stretched endlessly, Sailor Today, along with Capt. Sanjay Parashar, asked a question many avoided: If the world depends on seafarers, why were they not treated as key workers, like doctors and nurses?

In 2025, that question finally translated into global policy.

Recognition became a trigger for wider reform. Structured cadet pathways, digitalised assessments, and projects such as the IMO's NextWave initiative began addressing long-standing gaps in training and career progression. The message was clear: competence should be built, not improvised.

Equally significant was the shift in onboard culture. Campaigns like My Harassment-Free Ship, Crew Welfare Week, and expanded wellbeing programmes brought conversations about bullying, harassment, and mental fatigue into the open. The industry began moving away from glorifying endurance towards demanding accountability.

In India, the momentum was visible. The seafarer workforce crossed three lakh, backed by investments announced at India Maritime Week, updated safety and harassment-prevention training by DG Shipping, wellness initiatives like Sagar Mein Yog, and stronger welfare support from bodies such as NUSI and ISWAN. Welfare, finally, was being treated as continuity, not charity.

Life at sea remains demanding. The watches are long, the ladders steep, and home is always a port away. But 2025 proved something important. When seafarers are heard, the course can change.



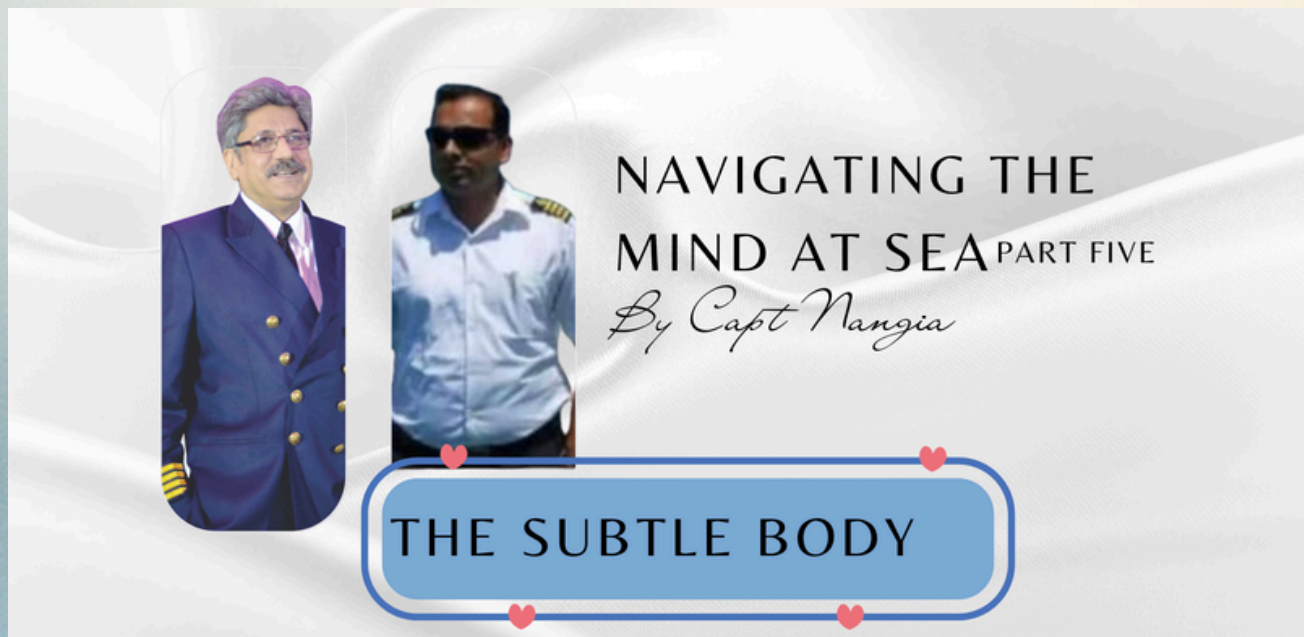
FROM BRIDGE TO  
BUNK, WE'VE GOT  
YOU COVERED

YOUR WATCHKEEPER  
ON AIR

DOWNLOAD  
NOW







## Coffee and Course

The ship was steady now. The sea outside the window had softened, no longer restless, no longer demanding attention. It felt like the right moment to turn inward.

After exploring consciousness and leadership in earlier conversations, Capt. Amresh gently shifted the discussion to what actually evolves within us across years at sea. Not rank. Not certificates. But the subtle body.

For a seafarer, this idea is not abstract. Life at sea strips things down. Long watches, isolation, responsibility, and silence bring us face to face with our inner machinery. What we carry inside eventually determines how we respond on the bridge, in the engine room, and within ourselves.

### The Evolving Body

Consciousness (chit), Thinking and feeling (manas), Intellect (buddhi), and Ego (ahankar).

The subtle body is a vibrational field, the heart-mind field. Depending on how we manage this field, it can be turbulent and complex, like a roaring ocean during a storm, or, at the other extreme, it can resemble a still pond where even a feather touching the surface creates gentle ripples. This is where spiritual practice plays a vital role, offering techniques to regulate, purify, and simplify this field, thereby bringing clarity, stillness, and peace.

In yogic philosophy, the heart is described as the field of action for the mind. This is a vast subject, and to begin, let us explore what this truly means.

There are four principal functions of the subtle body within this vibrational field: consciousness (chit), thinking and feeling (manas), intellect (buddhi), and ego (ahankar). These functions interact continuously and collectively constitute what we understand as the mind.

Among these four, consciousness is our primary focus. The other three functions exist within consciousness. Consciousness may be compared to a canvas for a painter, upon which the activities of manas, buddhi, and ahankar are orchestrated each day.



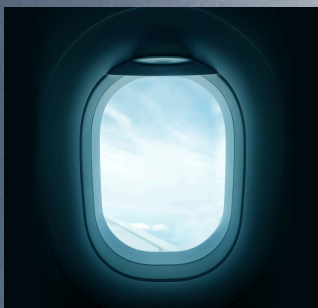
The sea outside  
reflects  
the sea  
within

## Expanding Consciousness

How do we actively allow consciousness to expand and evolve? Mere intention is not sufficient. We must understand how spiritual practice contributes to this evolution by creating conditions that progressively still the mind at deeper levels, thereby opening the inner universe.

At the physical level, strengthening the body requires exercise. Similarly, for the mind to evolve and for consciousness to expand, we must employ practices that belong to the subtle plane of existence. First, it is essential to understand that the evolution of consciousness has nothing to do with the accumulation of knowledge. Second, consciousness does not expand on its own; it requires the refinement of buddhi, manas, and ahankar. Intellect must evolve to support this expansion, and ego must also be refined so that it contributes positively to the evolution of consciousness.

For seafarers accustomed to technical mastery, this distinction is important. Certificates sharpen competence. Inner practices refine clarity.



## Role of Meditation

What role does meditation play in this process? We meditate to regulate the mind. An unregulated mind is pulled in many directions by desires, fears, habits, and impulses. As the mind scatters across numerous channels, it becomes weak. In contrast, a regulated mind brings focus, balance, and well-being. Unless meditation is practised properly and the mind is effectively regulated, consciousness cannot evolve.

Through meditation, manas, buddhi, and ahankar are refined and developed, with particular emphasis on manas. As we learn to simplify the thinking process from many channels to a single channel and then deepen it into feeling, the habit of feeling gradually replaces excessive thinking.

For someone standing a midnight watch, this shift is subtle but powerful. Fewer thoughts. Deeper presence. Better judgment.

## Sustaining the State

Sustaining and nurturing the condition received during meditation throughout the day is a natural by-product of effective practice. This continuity deepens regulation of the mind and elevates it to a higher level. When we maintain constant awareness or remembrance of the inner state, the canvas of consciousness remains unspoiled. Impressions do not accumulate excessively, and consciousness remains fresh and clear.

Imagine the heart-mind vibrational field as a spectrum of consciousness spanning the subconscious, conscious, and superconscious states. Swami Vivekananda once observed, "Consciousness is a mere film between two oceans, the subconscious and the superconscious."

One may also imagine the subconscious as the ocean, consciousness as the land's surface, and the superconscious as the vast sky extending into the universe. As evolution progresses, consciousness expands into both the subconscious and superconscious realms, exploring the vast potential inherent within the human heart.

## Buddhi and Prayer

As we dive deeper into this inner journey, the intellect, or buddhi, becomes increasingly heart-based. Intuition and inspiration develop, and buddhi becomes finely tuned, like a sensitive antenna receiving subtle signals from the heart. In this process, intellect matures into wisdom. Wisdom is often mistaken for the ability to make wise choices, but here it transcends choice altogether. In the realm of the heart, wisdom is pure and self-evident. Prayer plays a vital role in this transformation, helping us move from mere intellect to true wisdom. Through prayer, we connect with the Source, acknowledge our mistakes, and resolve not to repeat them. This sincere inner resolve is the essence of wisdom. Wisdom is the ability to utilise all faculties optimally, to achieve maximum output with minimum input. Such efficiency is possible only with a meditative mind and through meditative actions in daily life.





## Purifying the Field

For consciousness to evolve, the heart-mind field must be purified. Expecting clarity from a turbulent mind is like trying to see the bottom of a lake through muddy water. The spiritual practice of cleaning past impressions is therefore essential. It removes accumulated complexities and restores clarity, enabling consciousness to expand naturally.

For seafarers, this cleaning becomes a form of inner maintenance, as vital as any safety drill.

*Refined ego expands consciousness.  
Unrefined ego contracts it.*



## Understanding Ego

While misuse of ego leads to arrogance and self-importance, ego itself is an essential function of the mind. It provides identity, initiative, and the motivation to act, even the aspiration to evolve spiritually.

When refined, ego becomes a powerful ally. Humility is the key to this refinement. All great spiritual teachers have emphasised humility, teaching that while one may recognise one's own abilities, one should always regard others as greater.

An unrefined ego can act like a black hole, exerting a powerful gravitational pull that prevents the expansion of consciousness. In contrast, a refined ego allows consciousness to expand infinitely.

Ego can also be constructive. For example, an artist striving to surpass previous performances is driven by a healthy form of ego. However, believing oneself to be superior to all others reflects an unhealthy manifestation. When used wisely, ego becomes a catalyst for excellence and growth.

## Role of Manas

Manas is the faculty of contemplation. In meditation, the first step is to bring the mind from multiple thoughts to a single thought, for example, the source of Divine Light in the heart, as practised in Heartfulness. This thought is only a starting point, a springboard. It must eventually dissolve into feeling.

If one clings only to the thought throughout meditation, the mind remains strained and consciousness does not expand.

As feeling deepens, the sense of individuality fades. Eventually, even feeling dissolves, ego disappears, and one transcends the experience itself.

Through this evolution, manas progresses from thinking to feeling, then to being, becoming, and finally unbecoming, merging into the Absolute state of existence.

## Chit Expands

As buddhi, manas, and ahankar evolve through spiritual practice, the subtle body becomes lighter, purer, and simpler, like a still pond with minimal ripples. In such a state, consciousness naturally expands.

The next step is to utilise this expanded consciousness. After meditation, one should consciously allow the inner condition to radiate outward. By affirming that the inner state permeates the external environment, the fragrance of consciousness spreads naturally through one's presence, words, actions, and even silence.

There is also a second vital element that supports this journey into higher states of consciousness: yogic Transmission, pranahuti. Utilised by a teacher of true calibre, Transmission enables the seeker to navigate inner obstacles and accelerate spiritual evolution.

For a mariner, this is not withdrawal from the world. It is learning to sail it from a deeper, steadier centre.





## SMART SHIP HUB: 2026 WILL BE A BREAKTHROUGH YEAR FOR PROFITABLE DIGITALISATION

Vessel performance platform Smart Ship Hub (SSH) says 2026 will mark a turning point for maritime, proving that digital transformation is no longer optional, but profitable. The company expects a sharp acceleration in technology adoption across fleets and the wider maritime value chain, driven by demand for measurable ROI, real-time intelligence, and enterprise-grade AI.

“The industry is entering a decisive phase,” said Joy Basu, CEO of Smart Ship Hub. “Owners and operators want clear, measurable value, and digitalisation is now delivering time savings, agility, fewer intermediaries, and stronger top- and bottom-line performance.”

SSH expects momentum to come from ROI-led digital frameworks with defined KPIs across owners, operators, charterers, ports, and insurers, supported by high-frequency automated sensor data that improves accuracy, efficiency, and resilience. AI and Robotic Process Automation will reduce manual effort, enable real-time reporting, and support personalised, omni-channel decision-making.

Key advances will include low-cost edge gateways and plug-and-play sensors for retrofitting older vessels; unified platforms combining machinery data, video, vibration, and user inputs; AI-driven digital twins; and remote inspections with automated vessel health assessments.

“These innovations will democratise data,” Basu said, adding that AI will shift from isolated tools to embedded enterprise systems shaping safety, compliance, operations, and commercial decisions.

Despite uncertainty around the IMO Net Zero Framework, SSH sees a critical window to strengthen data foundations and adopt fuel-agnostic digital systems. “Digital transformation remains the smartest choice in any market,” Basu concluded.



# Seafarers First Wellbeing at Sea

## People Matter



At a time when the maritime industry is grappling with retention, mental wellbeing, and the changing realities of life at sea, one message rang clear at the recent International Seafarers' Welfare & Assistance Network (ISWAN) India Seminar: seafarers and their families must come first. Bringing together seafarers, cadets, families, industry leaders, regulators, training institutions, and welfare organisations in Mumbai, the seminar addressed how the industry can better attract, retain, and sustain its workforce. Held under the theme "Attract, Retain, Sustain: Supporting the Wellbeing of Seafarers and Their Families," the event reinforced the growing recognition that people-centred policies are no longer optional, they are essential to the future of shipping.



## Voices Heard



With Sailor Today serving as Media Partner, the seminar's discussions reached beyond the venue. Live streaming on Sailor Today Maritime Radio and the Sailor Today YouTube channel enabled seafarers at sea, families ashore, and maritime professionals worldwide to engage with the conversation in real time, ensuring that the voices of those most affected were not left unheard.

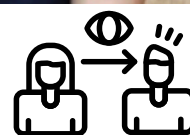
## Life Onboard



Discussions focused on the realities of seafaring across the career lifecycle. Speakers highlighted that technical skills alone cannot sustain a workforce. Psychological resilience, structured induction, meaningful mentorship, strong family connections, and responsive shore-side support systems were repeatedly identified as critical to long-term retention and wellbeing.



## First Voyage



Opening remarks by Deepak Shetty (IRS Retd.), Former Secretary to the Government of India and Former Director General of Shipping, underscored the lasting impact of a seafarer's first voyage. He emphasised that early experiences, guidance, and family preparedness often determine whether a seafarer remains in the profession.

## Future Ready



As Guest of Honour, Dr. Malini V. Shankar (IAS Retd.), Vice Chancellor of the Indian Maritime University, stressed the need for holistic training. Preparing future seafarers, she noted, requires more than technical competence. Emotional preparedness, ethical grounding, and family awareness must be embedded into maritime education.



## Shared Responsibility



The keynote address by Shyam Jagannathan (IAS), Director General of Shipping, Government of India, reaffirmed seafarer welfare as a national priority and highlighted the importance of collaboration between regulators, welfare organisations, and industry.

## Care Systems



A key highlight was the launch of three ISWAN initiatives: the SEAS Induction Programme, Together in Care for shore staff, and Sailing Together, a family handbook supporting communication, wellbeing, and reintegration.



## Seafarer Voices

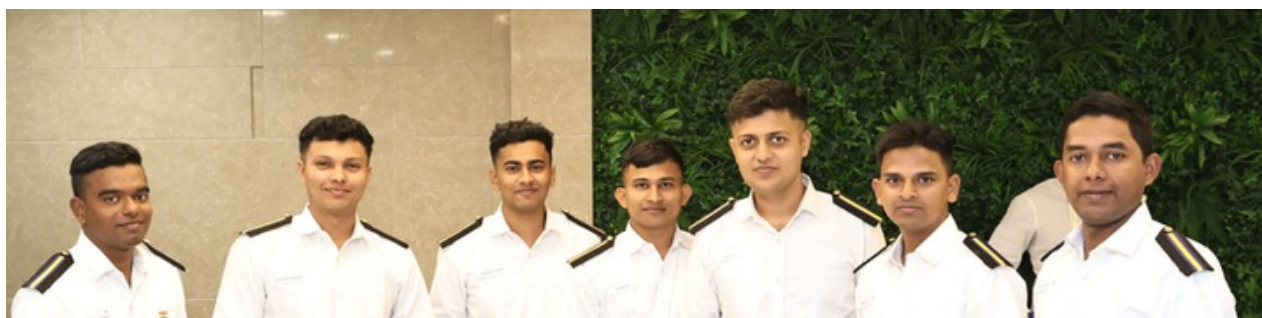


The session “Charting the Course: Seafarers’ Voices” brought lived experiences to the forefront, grounding discussions in real challenges faced at sea and at home.

## Looking Ahead



With strong industry support and sponsorship, the seminar concluded with a shared commitment to keep seafarers and their families at the heart of maritime policy and practice.



## Key Takeaways



- Early career experiences shape retention
- Families play a critical role in seafarer wellbeing
- Shore-side support is as vital as onboard systems
- Listening to seafarer voices strengthens the industry

# HOLIDAY SEASON SEES RISE IN SEAFARER MENTAL HEALTH CONCERNS

Mental health providers working with seafarers report a noticeable rise in distress during the holiday season, with loneliness, anxiety, low mood, and sleep problems among the most common concerns.

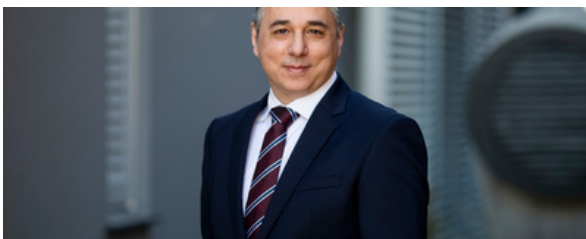
Mental Health Support Solutions, part of the OneCare Group, said December and early January consistently see higher demand for psychological support, particularly from seafarers on extended contracts or those separated from family during the holidays. The period often coincides with missed leave, delayed crew changes, and financial pressures.

Charles Watkins, Director of Clinical Operations at Mental Health Support Solutions, said the holiday season can intensify emotional strain. “Family-focused celebrations ashore can sharpen feelings of isolation and fatigue at sea. These pressures can reduce emotional resilience and make coping without support more difficult,” he noted, urging companies not to rely solely on assumed crew resilience.

Marinos Kokkinis, CEO of OneCare Group, added that the increase in contacts highlights the need for earlier and more visible intervention. “The holiday season is a clear pressure point that deserves greater attention,” he said.

Medical and wellbeing professionals stressed the importance of addressing mental health alongside physical care. Simple actions, such as creating space for reflection, staying connected, and finding small moments of joy onboard, can help support wellbeing.

The data underline the need for shipping companies to prioritise consistent and visible mental health support during the holiday period.



# INDUSTRY LEADERS DISCUSS SIRE 2.0, DIGITAL GAPS AND THE EVOLVING ROLE OF SEAFARERS

Industry leaders speaking at a recent webinar said the SIRE 2.0 inspection regime has fundamentally changed vessel inspections, shifting them from periodic events to a state of continuous readiness and increasing operational demands on crews.

Panellists from Kaiko Systems, the Bahamas Maritime Authority (BMA), Columbia Group, and INTERTANKO reflected on the regime's impact 14 months after implementation, noting its influence on operational culture, digital practices, and expectations of seafarers.

Fabian Fussek, CEO of Kaiko Systems, said SIRE 2.0 represents a structural shift away from reactive compliance. "You cannot prepare for this manually or episodically. Continuous data and structured preparation are essential," he said, adding that digital tools are helping crews prepare consistently and with greater confidence. One operator reported a 34 percent reduction in negative observations and significantly shorter preparation times after adopting structured digital tools.

Captain Kapila Malawwethanthri of the BMA welcomed the more evidence-based approach, while Columbia Group COO Leonid Zalenski highlighted familiarity as a key safety benefit and stressed the need to make compliance easier for crews through digitalisation.

INTERTANKO's Frans Ubaghs noted a shift in negative observations toward human-factor issues, underlining the need for better onboard standardisation. The panel agreed that SIRE 2.0 is accelerating transparency, data-driven consistency, and the expanding role of seafarers in compliance and safety.



# The Burj CEO Awards

24 November 2025 - Dubai, UAE



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## MCTC REACHES 1,300-VESSEL MILESTONE AS CEO EARNS INDUSTRY RECOGNITION

Maritime catering management company MCTC has reached a major milestone, now managing catering services on more than 1,300 vessels worldwide, reinforcing its focus on crew health and wellbeing. The achievement coincides with Group CEO Christian Ioannou being named Most Influential Leader in Maritime to Watch in 2025 by CXO Outlook.

The company's growth has seen MCTC provide training, guidance, and operational support to galley crews across its managed fleet, improving nutrition standards and wellbeing for thousands of seafarers. Ioannou said the milestone reflects the company's long-term commitment to crew welfare and the vital role nutrition plays onboard.

MCTC's approach goes beyond food provision, combining onboard and onshore training, regular vessel visits, wellness initiatives, and full-spectrum catering management. Its services integrate nutrition science, mental health awareness, food safety, and cultural sensitivity.

Ioannou, a trained chef who began his maritime career supporting cooks directly onboard, identified early gaps in galley support compared with other shipboard roles. Since MCTC's launch in 2012, the company has expanded to include supply chain support, budget planning, menu development, and 24/7 access to expert guidance.

Looking ahead, MCTC plans to expand its global presence, invest in advanced digital learning, and further strengthen its leadership in maritime catering and training.





## JAMAICA RE-ELECTED TO IMO COUNCIL WITH RECORD VOTE

Jamaica has been re-elected to Category C of the International Maritime Organization (IMO) Council, securing 129 votes, the highest the country has ever received in an IMO Council election. The result follows a year-long campaign led by the Ministry of Foreign Affairs and Foreign Trade, with support from the Jamaican High Commission in London, the Maritime Authority of Jamaica, and the Ministry of Energy, Transport and Telecommunications.

The re-election strengthens Jamaica's role in representing the interests of the Caribbean, Small Island Developing States (SIDS), and Least Developed Countries during the next two-year term. Foreign Minister Senator Kamina Johnson Smith, who led the Jamaican delegation to the IMO's 34th Assembly, said the strong support reflected Jamaica's longstanding commitment to the organisation. She noted that 2026 will mark 50 years since Jamaica joined the IMO and reaffirmed the country's dedication to safe, secure, efficient, and environmentally sustainable shipping.

The Minister also highlighted the resilience of Jamaica's maritime sector following Hurricane Melissa, which caused an estimated US\$8.8 billion in damage, equivalent to 44 percent of GDP. Despite the impact, key ports and fuel terminals resumed operations quickly.

Jamaica's renewed Council membership will allow it to continue contributing to global maritime regulation and ensuring broad geographical representation in IMO decision-making.



By Capt. Manish Tyagi



The engine room is quiet in a way it never used to be. Not silent, just different.

Somewhere between a hum and a question mark. The ship is still doing her job, but everyone on board knows something has changed.

Across the industry, the message is clear: the world needs to slow climate change, and shipping, like every other sector, must decarbonise. Fossil fuels that once powered global trade without a second thought are now part of the problem. **The question is no longer if change will come, but how and at what cost.**

On paper, the options look promising. LNG, still a fossil fuel, but cleaner, cutting carbon emissions by around 20 percent. Methanol, ammonia, hydrogen, even nuclear making a cautious return to the conversation. Then there are the variations within variations: e-methane, bio-methane, synthetic blends. Some are already being burned in engines today. Others exist mainly in pilot projects, white papers and future-facing presentations. From the shore, the shipowner studies charts of a different kind. Fuel availability. Long-term regulations. Capital investment. A vessel ordered today must still make money twenty years from now, in a market where fuel supply chains are uncertain and rules are still evolving. Choosing the “wrong” fuel could mean stranded assets, higher operating costs or regulatory dead ends. And when alternative fuels finally scale up, shipping will not be alone in wanting them. Power generation, aviation and heavy industry will all be competing for the same molecules.

On board, the conversation sounds different. For the seafarer, fuel is not a strategy, it is something you handle, monitor, bunker, store and respond to at 0300 hours during a rolling sea. New fuels bring new risks: toxicity, cryogenic temperatures, unfamiliar alarms, different firefighting procedures. Training must keep pace, manuals must make sense, and safety cannot be an afterthought added at the end of a design process. What works in a lab or a boardroom must also work on a dark, wet deck. Between these two worlds lies the real challenge. Alternative fuels face hurdles of scalability, safety, storage space, power density and global distribution. Not all will mature at the same speed, and none will arrive everywhere at once. The result, at least for the foreseeable future, will be a mixed-fuel reality. Different ships, different trades, different solutions, coexisting across the fleet.

As industry guidance, including that from SGMF as of 24.12.2025, reflects, there is no single silver bullet. Decarbonisation in shipping will be a transition, not a switch. One that must balance environmental responsibility with commercial survival and, critically, the lived experience of the people who keep ships moving. The engine room hums on. The course is set. The journey, like the fuel story itself, is only just beginning.

There are:

633: Fuelled vessel on order  
792: NG Fuelled vessels in operations  
111: Ports supplying LNG as Fuel  
62: NG BV in operation  
36: LBV's on order  
12: Methanol BVs in operation  
5: Methanol BVs on order

LNG, Liquid Bio Methane (LBM) and Liquid E-Methane (LEM), with the advantages of LBM and LEM being a drop in replacement for LNG requiring no further modification for use and because the processing and distribution facilities already in place for LNG can be utilised without modification, are likely to be the easiest path to carbon neutrality for vessels other than specialist tankers.

## A word about the Colour:

Colours have been assigned to indicate the origin / production method of hydrogen and thus its carbon emissions on combustion. Green fuels are at least carbon neutral, and some may even be carbon negative.

The colours are also applied to alternative fuels which use hydrogen as a feed stock, viz: Ammonia:

Colour	Origin / Production Method
<b>Brown</b>	Ammonia produced using methane in the conventional Haber-Bosch process.
<b>Blue</b>	Ammonia produced using the same basic Haber Bosch process except the generated CO <sub>2</sub> is collected and sequestered. If blue hydrogen is used as the feedstock instead of methane or coal the ammonia produced is also labelled "blue"
<b>Green</b>	i) Ammonia produced using the Haber-Bosch process with green hydrogen as it's feedstock ii) e-ammonia Ammonia produced using the Haber-Bosch process with green hydrogen as it's feedstock and the energy required to carry out the processing supplied from renewable or nuclear sources
<b>Pink</b>	Ammonia produced using hydrogen produced by electrolysis utilising electricity supplied from a nuclear power station.

### Methanol Colour Origin / Production Method

<b>Brown</b>	Methanol produced from coal
<b>Grey</b>	Methanol produced from natural gas (Includes LNG)
<b>Blue</b>	Methanol produced by utilising any feedstock with carbon capture and sequestration
<b>Blue</b>	e-methanol – Produced from green hydrogen and renewable electricity.
<b>Green</b>	i) e-methanol – Produced from green hydrogen and renewable electricity in conjunction with captured CO <sub>2</sub> ii) Bio-methanol produced from biomethane and captured CO <sub>2</sub>

### Liquid Natural Gas (LNG), Natural gas (NG), bio-methane and e-methane:

Consisting largely of methane (CH<sub>4</sub>) with other trace hydrocarbon gasses and nitrogen (N<sub>2</sub>) it is generally transported as liquid at approximately -160°C due to the volume reduction this allows, approximately 600:1, it is regassified for use either by pipeline or as compressed natural gas (CNG).

Natural gas (NG) occurs naturally in reservoirs and as gas produced with oil from oil wells. It has 1 carbon atom and therefore is not carbon neutral, however it is currently, the cleanest and least polluting of the fossil fuels. Whilst it has a calorific value greater than that of diesel fuel, it has a density of approximately half that of diesel oil meaning that more than twice the volume of LNG must be stored to provide the equivalent energy.

Production of bio-methane, which is chemically similar to LNG, being made up of mostly (95% or more) methane with a little carbon dioxide making up the remainder is a viable alternative to LNG, CNG or NG. It is produced from the biogas produced from bio waste in biodigesters, sewage plants or from landfill sites by collection. Bio methane can be compressed or liquified just the same as fossil gas so the infrastructure is already in place to use biogas with no modification required. Bio-methane on its own is carbon neutral (green), and if mixed with fossil methane (from fossil LNG) it reduces the carbon emissions proportionally. e-methane or synthetic methane is made by combining captured CO<sub>2</sub> with hydrogen produced by electrolysis. Provided the electricity required comes from renewable or nuclear sources the methane produced will be carbon neutral (green / pink) and can be used on its own or mixed with fossil methane to reduce its carbon emissions further. Any CO<sub>2</sub> produced by the process is captured and reused in the process. Biofuels are considered carbon neutral as the biomass used to form them absorbs CO<sub>2</sub> during growth or generation. Bio-methane made from animal dung can be carbon negative if the CO<sub>2</sub> removed in the conversion process is sequestered. Biofuels made using this as a feedstock will also be carbon negative.

### Advantages:

- Approx. 20% less carbon emissions from fossil LNG than HFO or Diesel oil.
- Under normal circumstances LNG is considerably cheaper than LSGO.
- Bio-methane and e-methane carbon free emissions.
- Mature technology for production of LNG and bio-Methane Gas (BMG).
- Infrastructure for transportation of LNG already in place at ports and bunkering vessels in service.
- NG in common use.
- Large base of vessels LNG ready (Pls refer to Statistics taken from SGMF web-portal).
- Increasing number of LNG projects coming online.
- Bio-gas and bio-methane production well understood.
- Large number of small bio-gas plants already installed.
- Mixing liquid bio or e-methane with LNG drastically reduces carbon emissions. A 25% mix of bio-methane in fossil LNG reduces CO<sub>2</sub> emissions to below that of the best performing Ammonia engines with 90% N<sub>2</sub>O abatement.
- Bio and e-methane is a drop in replacement fuel for Fossil LNG.
- 2 stroke and 4 stroke marine engines currently available with considerable working history, reliable and robust technology.
- Lowers emissions of SOx, NOx, and particulate matter compared to HFO and GO.
- Enabler for increasingly tight exhaust gas emission regulations.

### Disadvantages:

- LNG is a carbon-based fossil fuel.
- LNG, LEM or LBM the fuel requires special storage facilities and handling.
- Methane slip is an issue although manufacturers are addressing it.
- Low current availability of liquid bio and e-methane for vessel fuel.
- Infrastructure for bio-gas and bio-methane largely undeveloped in most countries.
- Not enough large bio-gas plants installed.
- Production cost of bio and e-methane more expensive.
- CAPEX cost increase for the engines designed to burn LNG / LBM, fuel storage and systems.



# first ammonia-fuelled ship takeover with successful pilot training



Anglo-Eastern Maritime Training Centre (AEMTC) has successfully completed its inaugural Pilot Training Course on Ammonia as a Marine Fuel, marking a key milestone in preparing seafarers for the industry's transition to low-carbon propulsion.

Held on 24–25 November, the two-day programme brought together 26 participants from across India, including Masters, Chief Engineers, senior officers, and junior engineers. Their varied backgrounds reflected real onboard teams and reinforced the shared responsibility required for operating ammonia-fuelled vessels. Teams from Anglo-Eastern in Australia and Delhi also participated, strengthening cross-regional alignment.

The course covered ammonia fuel fundamentals, safety, and operational readiness through classroom sessions and hands-on training at the Anglo-Eastern Maritime Academy in Karjat. Participants trained on the Academy's globally unique LNG/Ammonia bunkering skid, enabling safe simulation of bunkering operations and emergency scenarios.

Aalok Sharma, Group Director of Training, said the pilot course is a deliberate step toward taking delivery of Anglo-Eastern's first ammonia-fuelled ship, ensuring seafarer readiness, safety, and continuous learning as the industry moves toward a multi-fuel future.

# RE -IMAGINING MARITIME COMPETENCE

RISQ Series | Article 24  
Author: Capt. Robert Vaz, Chief  
Operating Officer, Navguide Solutions

When we talk to our non-seafaring friends or family about our profession and say we sail the high seas, they say, "Wow, you're so lucky to see so many places in the world." Some have a romantic picture of ships, thanks to Hollywood, Bollywood, and, of course, some of the glitzy cruise ships. But all this glamorous portrayal is just the tip of the iceberg. As seafarers, we know exactly the issues we deal with.

- Physically very demanding
- At times, poor living conditions
- High-stress nature of the job

And the list goes on. Now add to this the gaps in our competency skills. If we lack professional development or practical skills, or if we can't bridge the gap between the theoretical lessons learned at maritime institutes and day-to-day ship operations, all this adds up to mental stress.

Here are a few challenges we face in our marine profession

- Long isolation away from family
- Loneliness
- Unable to be at home when our family needs us most
- Rough weather
- Piracy and kidnapping
- No escape from the work environment
- Long contracts with uncertainty of sign off and even sign on for that matter
- No shore leave for weeks and months
- Hectic work schedule and quick turnaround in ports
- Working in shifts day and night, six on, six off at times
- Cultural differences, including food
- Communication challenges
- Limited opportunities to relax or socialise



Even steel ships bend  
So do we  
And still, we sail.



# Re -Imagining Maritime Competence

At Navguide Solutions, we are a strong marine-based company. We have served at sea for decades and understand the issues, empathising with seafarers. We have several interactive modules, including storytelling-based learning and gamified solutions, that will empower seafarers to perform their jobs effectively. In addition, we have guidance and mentorship modules, including guidance in text, image, and video formats, that will help seafarers become more confident in their jobs and, to some extent, reduce stress.

## Conclusion

Mental stress is a significant issue, and IMO has rightly addressed it by urging all managers to ensure they provide appropriate training for officers and crew to recognise early signs of distress and respond supportively.

Managers must have policies that ensure seafarers experiencing mental stress are not targeted or ridiculed. They must also ensure clear, stigma-free access to helplines and counselling services, which could make a significant difference to seafarers going through mental health issues.

Just as we care for our physical health, we must give equal importance to our mental health. Every seafarer matters, and as a seafaring fraternity, we must do our best to ensure that mental health issues are diagnosed early and that assistance, care, and empathy are provided.

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Together, let us support and strengthen each other as we tackle the rising issue of mental health. To summarise, I'd say that if any seafarer is silently struggling, you don't have to live that way. Please ask for help. You don't have to struggle in silence. Help is available. All the best.

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# ECDIS: THE MAGIC MAP THAT LIES POLITELY

Alarm sanity, safety contours,  
and backup plotting

At 0213 the bridge was a soft aquarium: dim screens, whispering fans, a mug of coffee trying not to be cold. OOW Rhea was mid-watch on the MV Pixel Princess, steering along a traffic lane that ECDIS rendered as a royal blue carpet to destiny. The ship hummed. The sea was boring (the correct setting for any sea), and the Electronic Chart Display and Information System - our beloved ECDIS, purred like a cat who had eaten the canary and was now considering your goldfish.

ssage to the world. With great, curated content.

And then it happened. BONG-BONG-BONG. ECDIS declared "Shallow Contour Ahead." A minute later: "Look-ahead Anti-Grounding: Obstruction." Two breaths on, the alarm list gained "Cross Track Error," "Route Not Monitored," and the oddly personal "You haven't slept in 19 hours" (all right, that one was in her head).

Rhea hit Ack like a percussionist—but not before checking the conning display, visually confirming the buoy line, and verifying the ship was exactly where sensible mariners put ships: in safe water. Five false alarms later, she smiled the weary smile of anyone who's ever trusted ECDIS: the magic map is brilliant, but it lies politely. It lies with outdated settings, misconfigured layers, wrong safety values, wrong ENC editions, and the greatest liar of all—human wishfulness.



This is your bedtime story about how to make ECDIS tell the truth often enough, how to tame alarms without muting safety, and how to keep backup plotting alive so you never appear in an incident report titled "Over-Reliance on a Screen, Chapter 94."

## Seafarer's Bed Time Stories

### **The First Spell: Alarm Sanity (or, Which Bong Deserves Your Soul)**

ECDIS can be a symphony—or a smoke alarm next to a toaster. The trick is signal-to-noise. Too few alerts and you'll learn about the reef the expensive way. Too many, and you'll become a professional Acknowledger of Things.

#### **Golden rules for alarm sanity Route-dependent, not route-independent.**

Alarms should reflect this ship, on this voyage, at this draught, not last month's coastal run. Before departure, run an Alarm Design Pass:

- Switch on mandatory alerts (anti-grounding/look-ahead, safety contour crossings, EBL/VRM guard rings if integrated).
- Review optional alerts: disable "novelty bongs" that add noise (e.g., cosmetic chart-layer warnings) while keeping CPA/TCPA from radar/ARPA if integrated.
- Confirm bridge policy on audible vs. visual alerts—and log what you did.

#### **Make the look-ahead box your friend.**

Set time-based AND distance-based look-ahead (e.g., 2–3 ship lengths and 6–12 minutes) so the system warns in time to be useful. Too short = jump scare. Too long = endless false anxiety.

#### **Own the route monitor.**

Only one route should be "monitored" at a time. If your alarm list says "Route Not Monitored" and you are on the planned route, it means you loaded the plan but forgot to arm it. That's not an alarm; that's a relationship problem.

#### **Tune the cross-track error (XTE).**

Set XTE limits to the lane width and pilotage reality—not the optimistic width drawn by someone in a swivel chair. "±0.1 nm" sounds professional until the first set of tugs arrives and your ECDIS begins screaming about a crime you didn't commit.

#### **Don't gag the smoke alarm.**

If an alarm is consistently junk, don't just mute it—fix the cause (often a wrong layer, wrong value, wrong ENC, wrong sensor priority, or an over-zealous guard). Muted alarms have a way of being right on the night fate chooses drama.

### **Bedtime moral**

**Either curate your alarms or they will curate you.**

### **The Second Spell: Safety Values That Actually Keep You Safe**

**ECDIS draws three invisible fences around your ship's pride:**

- Safety Depth – a depth value that renders soundings equal/greater in bold (encouraging you to aim for the bold bits).
- Safety Contour – the line between "safe" and "maybe not safe"; often the single most important value for coastal navigation.
- Shallow/Deep Contours – for color shading ("dangerous blue," "comfort blue," "smug white").

#### **How to set them like a grown-up**

- Work backwards from "Under Keel Clearance."
- Start with UKC policy (e.g., 10% of draught open sea, 15% coastal, 20–30% confined). Add squat, heel, pitch, tide uncertainty, and chart datum margin. Convert the UKC requirement at your worst point to a Safety Contour value.

Example: Draught 12.0 m; UKC policy 15% → 1.8 m; squat 0.7; heel/pitch 0.3; tidal/ADQ fudge 0.5 ⇒ Safety Margin ≈ 3.3 m.

If charted depths inside a lane are 14–16 m, set Safety Contour 15 m (not 30 m because it “looks tidy,” and not 10 m because optimism is not a seamanship technique).

1. Safety Depth = what you'd be happy to aim for.
2. Pick Safety Depth equal to Safety Contour (or just below) so bold soundings mark the water you prefer to keep under you.
3. Color with intent.
4. A shallow contour (e.g., 5–7 m) gives the “do not touch” blue. Deep contour (e.g., 30–50 m in coastal routes) gives you the white comfort zone. Avoid all-blue screens that make the world look like a bathtub of doom.
5. Re-calc at draught change.
6. After bunkering or ballast moves that materially change draught, update safety values and re-arm the route. Many groundings were born from yesterday's numbers in today's estuary.

### Bedtime moral

Safety settings are math with weathered judgment. If you can't explain your numbers, you don't own them.

## The Third Spell: Layers, Licenses, and the ENC Goblin

ECDIS is only as wise as the charts you feed it. The ENC goblin steals reliability through out-of-date cells, wrong usage bands, and half-baked display settings.

Tame the goblin

- Update discipline: Keep PERM (permanent changes) + TEMP/PROT (temporary/provisional) up to date. Many “surprises” were NOTAMs you didn't invite to the party.
- Usage band awareness: Coastal route? Prioritize usage bands 4–5 (coastal/approach). Deep sea? 1–2 (overview/general) plus planned approach packs.
- Display base vs. standard vs. all-the-things: Standard display is your friend. Add additional layers (e.g., spot soundings, isolated dangers) per phase. All-layers-all-the-time equals a Christmas tree you can't interpret.
- CATZOC respect: Treat CATZOC (Zone of Confidence) grades seriously. C/D means survey quality is meh; pad your UKC and slow your ego.

### Bedtime moral:

If the ENC is stale or mis-layered, ECDIS will lie—politely, consistently, and with legal stationery.

## The Fourth Spell: Position Sources and the Dance of Priorities

Two ECDIS sins start many casualty reports: single-sensor faith and wrong sensor priority.

- Prioritize sensors (primary GNSS, secondary GNSS, Loran/ECDIS DR if fitted, radar overlay in restricted waters). Test alarms on source switch so the watchkeeper knows the sound of “we just lost primary GPS.”
- Use radar overlay like a lie detector. In coastal waters, rasterized radar pictures on ECDIS should kiss the shoreline and buoys. If it's offset, either tune the radar, check the offset, or question your position.
- Cross-check with the outside world. Parallel index lines, bearings to conspicuous lights, ranges to buoys - paper skills on glass.

**Bedtime moral:**

**ECDIS is best when it dances with radar, eyes, and common sense.**

### Backup Plotting: The Art We Forgot to Frame

Every “over-reliance” finding had a sibling line: “No effective backup plotting.” The COLREGs won't save you from a wrong chart layer; backup plotting will save you from believing it.

#### **Make backup real, not ceremonial**

1. Paper-lite, not paper-less, habits.
2. Even on paperless ships, keep position lines every 3–6 minutes in pilotage using PI lines, transits, or bearing/range from radar. Use a bridge window pelorus (two tape marks) to watch constant bearing risks.
3. Parallel indexing (PI) that lives on the conning display.
4. Pre-draw PI lines for legs with crosswinds/currents. Everyone on the bridge should know which tangent on the radar equals “we're on the line”.
5. The Litmus Log.
6. Enter fix method (“GNSS+RADAR PI,” “2 bearings + range”), safety values, CATZOC state, and last ENC update date at the start of the watch. If something later feels wrong, your past self-left breadcrumbs.
7. Dead reckoning is not dead.
8. When GNSS sulks, put down DRs at intervals and mark set/drift. DR + PI will carry you through the short darkness between fixes.

**Bedtime moral:**

**Backup plotting is the story you can tell when the screen's story goes weird.**

### Human Factors: The Polite Lies We Tell Ourselves

- “I'll tweak that after coffee.” No, you won't. Set safety values before sailing and log them.
- “All alarms on = safest.” Also no. You'll grow numb. Curate.
- “The previous watch set it right.” Maybe. Confirm, because you go to the inquiry, not them.
- “ENCs updated last week; we're fine.” Temp/Provisional notices age like milk.

### **Two-minute pre-approach ritual (say it out loud):**

"Draught is X. Safety contour Y. Safety depth Z. Look-ahead a/b. XTE  $\pm$  c. CATZOC mostly A/B, one C near waypoint 5. Route monitoring ON. Radar overlay checked aligned on buoy Charlie. PI lines set for Leg 3 and 4."

### **Rhea's Redemption: Turning Noise into Navigation**

Back on Pixel Princess, Rhea stopped being percussion. She opened Route Monitor, confirmed it was armed, halved the look-ahead time, widened XTE to reflect the actual lane, and re-checked safety contour against today's draught. She toggled to Standard Display, added isolated dangers, and checked CATZOC for the next headland (C—oh hello, caution). Radar overlay matched the buoy dance; PI lines were green and friendly. Ten minutes later the ECDIS went quiet—not because alarms were muzzled, but because the settings matched reality. She wrote three lines in the Litmus Log: "Safety contour 15 m (draught 12.0 + margins). Safety depth 15 m." "Look-ahead 2L/8 min; XTE  $\pm$ 0.3 nm for this lane."

"ENCs week 47 + T&P; CATZOC C near WP 7- speed modest." When the Master wandered in with a mug and eyebrows, Rhea briefed in thirty seconds. He nodded the nod that tastes better than a biscuit. The ship sailed on, midnights remained boring, and the magic map behaved - still capable of polite lies, now countered by impolite cross-checks.

### **A Pocket Poster for the Bridge (tear here, tape there)**

#### **ALARM SANITY**

- Arm one route only.
- Look-ahead: 2–3L + 6–12 min.
- Keep mandatory alerts on; kill only cosmetic noise.
- XTE fits the lane, not a wish.

#### **SAFETY VALUES**

- Derive from UKC + squat/heel/tide/ADQ.
- Safety Contour = bold boundary.
- Safety Depth  $\approx$  contour; bold soundings = aim points.
- Recalculate after draught change.

#### **ENC DISCIPLINE**

- Update PERM + T&P.
- Use proper usage bands; Standard Display + needed layers.
- Respect CATZOC: C/D means slow brains, slow ship.

#### **POSITION & BACKUP**

- Sensor priority set; test loss-of-GNSS alarm.
- Radar overlay: align or question life choices.
- PI lines and window pelorus live on the bridge.
- DR during gaps; log how you fixed, not just that you fixed.

#### **HUMAN FACTORS**

- "Set now, not later."
- "Fewer, better alarms."
- "Confirm, don't assume."
- "If your settings aren't written, they don't exist."

### **Final Lullaby**

ECDIS is the best storyteller on the bridge: fast, colorful, persuasive—and occasionally wrong with great confidence. Your job is to edit the story: tune the alarms so warnings mean something, set safety contours that reflect today's ship in today's water, and keep backup plotting alive so you remain the final source of truth.

Sail long enough, and you'll collect your own nocturnal bongs, polite lies, and the sweet silence that comes after you fix them. May your screens be honest, your charts current, your PI lines straight - and your midnights gloriously dull.

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