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MENTAL HEALTH AND WELLBEING OF SEAFARERS A STRATEGIC PRIORITY IN THE MODERN MARITIME INDUSTRY

C/E.Balan Muthuramalingam, Principal-RLINS

The maritime profession remains one of the most demanding careers in the world, requiring discipline, resilience, and continuous responsibility. Seafarers form the backbone of global trade, ensuring the uninterrupted movement of cargo and essential commodities across international waters. While the industry continues to advance technologically, increasing attention is now being given to one of its most valuable assets — the mental health and wellbeing of seafarers.

Life at sea presents unique psychological challenges. Extended periods away from family, social isolation, demanding work schedules, fatigue, multicultural working environments, and operational pressures can significantly impact emotional wellbeing. Despite advancements in automation and digital systems, the human element remains central to safe and efficient maritime operations.

The COVID-19 pandemic further highlighted the emotional and psychological difficulties faced by seafarers worldwide. Prolonged contracts, crew change challenges, and restricted shore leave emphasized the urgent need for stronger welfare and mental health support systems within the maritime sector.

Mental wellbeing is directly connected to operational safety, decision-making, teamwork, and leadership onboard ships. Stress, fatigue, and emotional exhaustion can affect concentration and situational awareness, ultimately influencing overall shipboard performance. Therefore, mental health is not merely a welfare concern, but a critical component of maritime safety culture.

Today, leading maritime organizations are increasingly adopting human-centered approaches by introducing counselling services, wellness programs, better onboard communication facilities, and leadership training focused on empathy and crew engagement. Shipboard leadership plays a vital role in creating a supportive and respectful working environment where seafarers feel valued and heard.

Maritime education institutions also carry an important responsibility in preparing cadets not only technically, but emotionally. Future seafarers must be equipped with resilience, stress management skills, emotional intelligence, and awareness regarding mental wellbeing. Alongside navigation and engineering competencies, the human element must remain a key focus of maritime training.

As the industry progresses toward digitalization and smart shipping, the importance of human wellbeing becomes even more significant. Technology can support operations, but it cannot replace human judgment, leadership, and emotional strength.

The future of the maritime industry depends not only on operational excellence, but also on how effectively it supports the people who serve at sea. Investing in the mental health and wellbeing of seafarers is ultimately an investment in safety, sustainability, and the long-term strength of the global maritime community.

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Ms. Palak Chauhan, a student of RL Institute of Nautical Sciences, secured the First Rank in the GP Rating Course and was awarded a scholarship of ₹50,000. This remarkable achievement brings immense pride and honor to our institution.

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THE FUTURE OF MARINE ELECTRICAL SYSTEMS: EMERGING TRENDS & INNOVATIONS

Mr. P.Veerakumar, Faculty - RLINS

One of the biggest shifts is the move toward **highly electrified and hybrid propulsion systems.** Traditional diesel-only setups are increasingly being supplemented or replaced by hybrid configurations that combine batteries, fuel cells, and conventional engines. This not only improves fuel efficiency but also reduces emissions, helping the industry align with stricter environmental regulations from bodies like the International Maritime Organization (IMO).

Another major development is the rise of **smart power management systems.** Modern vessels now rely on integrated software that continuously monitors electrical loads, predicts demand, and optimizes energy distribution in real time. This level of automation reduces human error and improves operational reliability, especially on large commercial ships where power systems are highly complex.

Renewable energy integration is also becoming more practical at sea. While still limited in scale, solar panels, wind-assist technologies, and even experimental wave energy systems are being used to support on board electrical loads. These systems are typically auxiliary, but they contribute meaningfully to reducing overall fuel consumption.

At the same time, **predictive maintenance and digital diagnostics** are transforming how electrical systems are serviced. Instead of relying on scheduled maintenance or reacting to failures, sensors embedded throughout the ship collect continuous data on voltage stability, insulation health, and equipment performance. This data is analysed using AI-driven tools to predict failures before they occur, significantly improving safety and reducing downtime.

Cybersecurity has also emerged as a critical concern. As vessels become more connected through integrated control systems and satellite communications, protecting electrical and control networks from cyber threats is now as important as physical safety systems.

Looking ahead, the industry is moving toward **fully integrated "smart ships"**, where electrical, mechanical, and navigation systems operate as a unified digital ecosystem. This convergence will likely define the next generation of maritime engineering—making vessels cleaner, safer, and far more efficient than those in operation today.

Courtesy: www.mdmarineelectric.com

Finally, digitalization is trying everything together. With IoT-enabled sensors and satellite connectivity, ship operators can monitor electrical systems remotely, analyse performance data fleet-wide, and optimize operations in real time.

BOXING OF A COMPASS

Cadet. Aryan Sudan, GP Rating

In the vast and demanding field of maritime navigation, precision is not optional — it is essential. Every movement of a vessel depends on accurate direction and sound judgment. One of the most fundamental traditional skills that reflects this precision is known as Boxing of a Compass. Although it may appear to be a simple memorization exercise, it represents discipline, maritime heritage, and professional seamanship.

Boxing of a compass refers to the practice of naming all thirty-two points of the compass in their correct sequence, beginning from North and proceeding clockwise around the compass card until returning to North at 360 degrees. A complete circle consists of 360°, and when divided into thirty-two equal parts, each compass point represents 11¼° (11.25 degrees). This systematic division enables mariners to describe directions with remarkable accuracy.

The compass begins with the four primary cardinal directions — North (0°), East (90°), South (180°), and West (270°). Between these lie the intercardinal directions — Northeast (45°), Southeast (135°), Southwest (225°), and Northwest (315°). For greater navigational precision, each of these directions is further subdivided into intermediate points, forming a total of thirty-two named compass directions.Below are the complete thirty-two points of the compass with their corresponding degrees:

North (N) – 0°

North by East (NbE) – 11.25°

North-North-East (NNE) – 22.5°

North-East by North (NEbN) – 33.75°

North-East (NE) – 45°

North-East by East (NEbE) – 56.25°

East-North-East (ENE) – 67.5°

East by North (EbN) – 78.75°

East (E) – 90°

East by South (EbS) – 101.25°

East-South-East (ESE) – 112.5°

South-East by East (SEbE) – 123.75°

South-East (SE) – 135°

South-East by South (SEbS) – 146.25°

South-South-East (SSE) – 157.5°

South by East (SbE) – 168.75°

South (S) – 180°

South by West (SbW) – 191.25°

South-South-West (SSW) – 202.5°

South-West by South (SWbS) – 213.75°

South-West (SW) – 225°

South-West by West (SWbW) – 236.25°

West-South-West (WSW) – 247.5°

West by South (WbS) – 258.75°

West (W) – 270°

West by North (WbN) – 281.25°

West-North-West (WNW) – 292.5°

North-West by West (NWbW) – 303.75°

North-West (NW) – 315°

North-West by North (NWbN) – 326.25°

North-North-West (NNW) – 337.5°

North by West (NbW) – 348.75°

Back to North – 360°

Historically, before the development of modern electronic navigation systems, sailors relied entirely on magnetic compasses and celestial navigation. Commands such as "Steer West-South-West" or "Alter course to East by North" required immediate understanding and precise execution. In such circumstances, boxing of a compass was not merely theoretical knowledge — it was vital for safe navigation and survival at sea.

Even in today's technologically advanced maritime environment, where vessels are equipped with GPS, gyrocompasses, radar, and electronic chart systems, knowledge of compass points remains fundamental. Technology may fail due to power loss or mechanical malfunction, but a well-trained seafarer's understanding of traditional navigation principles remains dependable. Therefore, boxing of a compass symbolizes both practical competence and respect for maritime tradition.

In conclusion, boxing of a compass is far more than a memorized sequence of directions. It represents discipline, situational awareness, and professional excellence. For future Merchant Navy officers and ratings, mastering this skill strengthens not only navigational knowledge but also the identity and pride of being a true seafarer.

⚓ Fair winds and following seas. ⚓

The Marine Field: A Gateway to Global Trade, Technology, and Sustainability

Cadet.Nitesh Kumar, GP Rating

The marine field, particularly the Merchant Navy and maritime industry, plays a fundamental role in shaping the modern world. It is not merely a profession but a dynamic sector that connects economies, advances technology, and supports global development.

Role in the Global Economy

The Merchant Navy serves as the backbone of international trade. A significant portion of the world's goods—including food, fuel, machinery, and consumer products—are transported by sea. By ensuring safe and efficient shipping operations, maritime professionals enable global commerce and economic stability.

Values and Life at Sea

Life at sea is both challenging and rewarding. A career in the marine field demands discipline, adaptability, and resilience. Seafarers develop strong leadership skills, teamwork, and problem-solving abilities while experiencing adventure and cultural exposure across different countries and oceans.

Safety and Navigation

Maritime safety remains a top priority. Marine lighthouses, often described as "silent guardians," guide vessels through dangerous waters, narrow channels, and harsh weather conditions. Along with advanced navigation systems, they play a crucial role in preventing accidents and ensuring secure voyages.

Technological Advancement

Modern shipping combines cutting-edge technology with strict international safety standards. Advanced navigation tools, automated systems, satellite communication, and efficient vessel management technologies improve operational reliability and enhance maritime safety.

Career Opportunities and Benefits

The marine profession offers global exposure, financial stability, and long-term career growth. Professionals gain international experience while contributing to a sector that remains essential to world trade and development.

A Profession with Purpose

Beyond employment, the marine field represents a commitment to maritime safety, environmental responsibility, and the continuous connection of global economies. Every voyage contributes to sustaining industries and supporting communities worldwide.

A Multidisciplinary Industry

The maritime sector integrates multiple disciplines, including naval architecture, marine engineering, and advanced technological systems. Experts design, construct, operate, and maintain complex ships and offshore structures that support transportation, energy production, and ocean exploration.

Sustainability and Green Shipping

As environmental concerns grow, the maritime industry is actively transitioning toward sustainability. Efforts focus on decarbonisation, energy-efficient vessels, alternative fuels, and environmentally responsible practices to achieve net-zero emission goals and protect marine ecosystems.

Digitalization and AI Transformation

Digital transformation is revolutionizing maritime operations. Artificial intelligence enables vessel optimization, predictive maintenance, autonomous navigation, and smarter logistics systems. These innovations enhance efficiency, reduce risks, and improve overall safety at sea.

The Rise of the Blue Economy

The marine field extends beyond transportation into the expanding "Blue Economy." This includes offshore renewable energy such as wind power, marine biotechnology, deep-sea resource exploration, and sustainable aquaculture. These sectors create new opportunities while promoting responsible ocean utilization.

Conclusion

The marine field stands at the intersection of global trade, technological innovation, and environmental responsibility. With its blend of adventure, professionalism, and purpose, it remains a vital industry shaping the future of international connectivity and sustainable development.

Courtesy : www.imo.org

Nine GME cadets who passed out in March 2026 have been selected by MMSI and will be placed on board upon successful completion of the company's in-house training programs.

Understanding COLREGs and Their Annexes: The Rules That Keep the Seas Safe

Cadet.Harmeet Singh, GP Rating

Every day, thousands of vessels—from small fishing boats to massive container ships—navigate the world's oceans. The safe and efficient movement of this global maritime traffic depends on a single, universally recognized framework: the International Regulations for Preventing Collisions at Sea (COLREGs).

Adopted in 1972 by the International Maritime Organization (IMO), COLREGs establish the internationally accepted "rules of the road" for vessels at sea. These regulations apply to all ships operating on the high seas and connected navigable waters, forming a cornerstone of modern maritime safety.

The Core Rules of COLREGs

COLREGs clearly define the responsibilities of vessels in different navigational situations, including crossing, overtaking, and head-on encounters. By specifying which vessel must give way and which must stand on course, the regulations minimize confusion and greatly reduce the risk of collision.

The rules also establish essential operational requirements, including:

Maintaining a proper lookout at all times.

Proceeding at a safe speed according to conditions.

Taking early and decisive action to avoid collision

Making effective use of radar and all available navigational equipment

Beyond technical instructions, COLREGs emphasize good seamanship, professional judgment, and situational awareness, recognizing that safe navigation ultimately depends on the competence and responsibility of the mariner on watch. The Role of the Annexes Complementing the main body of regulations are four technical annexes that translate general principles into practical standards used worldwide. Annex I – Navigation Lights and Shapes

Annex I outlines technical requirements for navigation lights and day shapes. These standardized visual signals enable vessels to identify each other's type, status, and movement—especially at night or in restricted visibility. Annex II – Fishing Vessel Provisions. Annex II provides additional rules specifically for fishing vessels operating in close proximity, addressing the unique operational challenges they face while engaged in fishing activities.

Annex III – Sound and Light Signals

This annex specifies technical standards for sound signaling equipment, including whistles, bells, and gongs. These signals play a vital role in collision avoidance, particularly during fog, heavy traffic, or limited visibility.

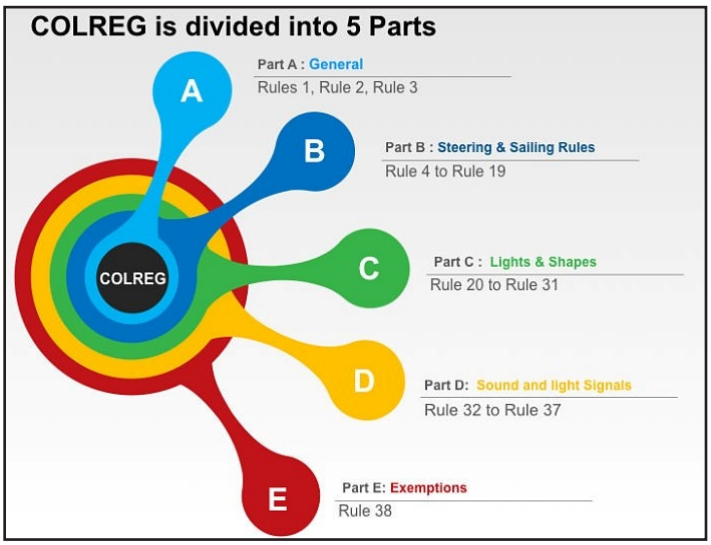
Annex IV – Distress Signals

Annex IV lists internationally recognized distress signals, such as flares, radio alerts, and visual signals used to request immediate assistance at sea.

A Global Framework for Maritime Safety

More than five decades after their adoption, COLREGs remain one of the most important international maritime agreements ever implemented. By standardizing navigational behavior across nations, vessel types, and operating environments, they significantly reduce the risk of collisions while safeguarding lives, cargo, and the marine environment.

In an era of increasing maritime traffic and rapid technological advancement, the continued relevance of COLREGs highlights a fundamental principle of navigation: clear rules, consistently applied, are essential for safety at sea.



Courtesy : www.imo.org

On 7th March 2026, a Career Awareness Programme on Opportunities in the Merchant Navy was conducted by the Engineering students at Kalasalingam Academy of Research and Education.

The programme was honoured by the presence of Mr. Rethinavel Pandi C, a Marine Engineer, and Mr. Chandran Murthi, who attended as guest speakers. They shared their valuable professional experiences and provided detailed insights into career prospects in the Merchant Navy.

During the session, the speakers explained various maritime courses, eligibility criteria, training requirements, and career growth opportunities available in the shipping industry. They also highlighted the importance of discipline, technical knowledge, physical fitness, and dedication required to succeed at sea.

The interaction session allowed students to clarify their doubts regarding onboard life, salary prospects, global exposure, and future advancements in the maritime sector. The programme greatly motivated students and enhanced their awareness about the dynamic and rewarding career opportunities in the Merchant Navy.

The event concluded successfully with an engaging discussion, leaving students inspired to explore careers in the maritime field.