



# MARITIMETRAINER

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# ATTENDING POSIDONIA 2022

As **Maritime Trainer**, we have completed #posidonia2022 with very good memories, valuable discussions, opportunities and a lot of fun with friends. Very glad to be in back into normal. The outcome and proof of our continuous efforts for #safer, #cleaner and #smarter oceans through a proper digital #competencemanagementsystem that meets the industry requirements proactively will follow very soon.



## ATTENDING #ACCELERATEIZMIR DEMO DAY



We have completed #AccelerateIzmir that took four months, with valuable training sessions, having mentoring support, building strong relations and potential partners. We have learned a lot during this process and finally made our pitch to investors which found attractive. Last but not least we have been honoured by most interesting technology award during the demo day.

# LOWERING CONTAINERSHIP EMISSIONS THROUGH JUST IN TIME ARRIVALS

**J**ust In Time (JIT) arrivals allow ships to optimise speed during their voyage to arrive in port when berth, fairway and nautical services are available. Containerships can reduce fuel consumption and resulting carbon dioxide emissions by 14% on a per voyage basis using JIT arrival, according to a new study, commissioned by the IMO-Norway GreenVoyage2050's Global Industry Alliance to Support Low Carbon Shipping (Low Carbon GIA).

JIT is an important tool that can contribute to a ship attaining its required carbon intensity indicator (CII) and associated CII rating in accordance with IMO's short-term GHG reduction measure, which will enter into force later this year. JIT can be taken up, together with other operational measures, in the enhanced Ship Energy Efficiency Management Plan (SEEMP) which will play a central role in the implementation of IMO's recent energy efficiency measures.

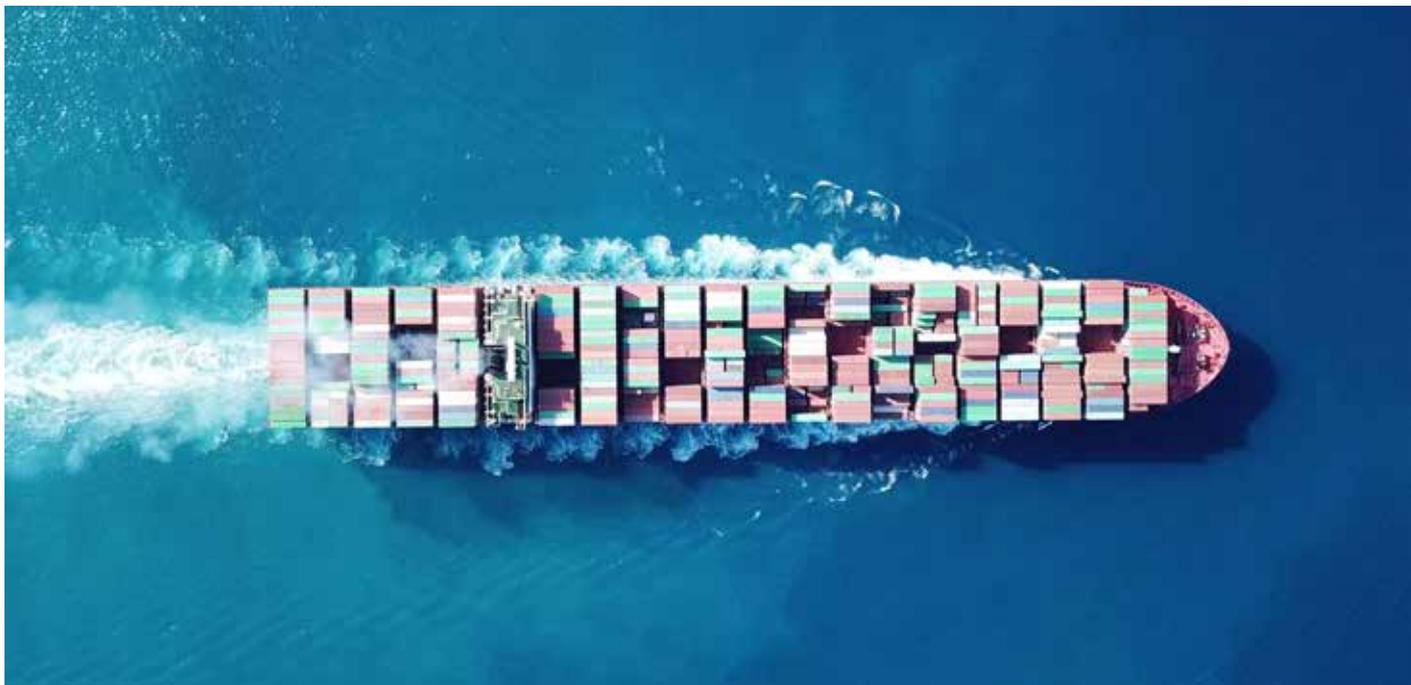


This latest study, undertaken by MarineTraffic and Energy and Environmental Research Associates (EERA), explores the global implementation of JIT in the container sector. Using AIS data from the calendar year 2019 (pre-pandemic), the impact of JIT on fuel consumption and emissions was assessed by optimizing all voyages in three scenarios:

1. Over the entire voyage,
2. Over the last 24 hrs, and
3. Over the last 12 hrs.

The results show that while optimizing speed over the entire duration of a voyage offers the greatest saving opportunity (displaying a mean fuel saving per voyage of 14.16%), there were benefits in all scenarios with savings of 5.90% (24 hrs scenario) and 4.23% (12 hrs scenario), respectively. This indicates that implementing JIT over the last 12 hours of a voyage can already greatly contribute to fuels and emissions savings.





“In fighting climate change, global shipping has a steep mountain to climb, and we need to pull all levers to deliver in line with the Paris Agreement. The study underlines that while we work to accelerate and scale the availability of the future green fuels, in the short-term significant emissions reductions can be achieved by bringing vessels, terminals and ports together to exchange standardized data and facilitate Just In Time arrivals,” said Capt. Andreas M. van der Wurff, Port Optimisation Manager at A.P. Moller-Maersk and Chair of the Low Carbon GIA Ship-Port Interface workstream.

The Low Carbon GIA is a public-private partnership with the aim to develop innovative solutions to address common barriers to decarbonizing the shipping sector. It has been actively exploring the concept of JIT through various research projects and several industry stakeholder roundtables. In 2020, it published the Just In Time Arrival Guide – Potential Barriers and Solutions, providing guidance to stakeholders towards the implementation of JIT Arrivals.

The Low Carbon GIA was established in 2017 under the framework of the GEF-UNDP-IMO GloM-EEP Project and now continues to operate under the framework of IMO-Norway GreenVoyage2050 Project.

<https://www.imo.org/en/MediaCentre/Pages/WhatsNew-1718.aspx>

# COMBATTING MICRO-PLASTICS, **BIO-FOULING** AND **OTHER WASTES**



**R**aising awareness of and combatting ocean pollution caused by micro-plastics, bio-fouling, chemicals and macro-organisms were the focus of the most recent meeting of the IMO's GloFouling Partnership Project's Global Industry Alliance (GIA) for Marine Biosafety.

GIA members have noted increasing evidence of biological material, microplastics and chemicals found in wastes generated by in-water cleaning of vessel anti-fouling paints and coatings. This trend in pollution could negatively impact the marine environment if it continues to grow, prompting the GIA to make this an area of future work.

Participants at the hybrid meeting also discussed the ongoing impact of ships' biofouling on Greenhouse Gas Emissions (GHG), and the status of a short documentary video to increase awareness of good biofouling management.

Meeting attendees highlighted the need for greater participation by the ports sector in discussions about bio-fouling. As ports control in-water cleaning of ships on their premises, they are key players in biofouling management and would bring greater expertise and resources to the work of the GIA for Marine Biosafety. The GIA is actively seeking to recruit new members\* from the ports sector.

Many of the topics discussed at the meeting will be in the spotlight at the second R&D Forum and Exhibition on Biofouling Prevention and Management for Maritime Industries, which will be held in London from 11-14 October 2022.

The GloFouling Partnerships is an international project led by the IMO to address the transfer of harmful aquatic species through biofouling in some of the developing regions of the world.

\*The GIA works as a platform to bring committed maritime leaders together to support IMO efforts to protect the marine biodiversity and decarbonize shipping. It currently consists of nine members and one association with observer status: the International Association of Oil & Gas Producers (IOGP).

<https://www.imo.org/en/MediaCentre/Pages/WhatsNew-1721.aspx>



# ICS LAUNCHES NEW 'SHIPPING POLICY PRINCIPLES FOR PANDEMIC RECOVERY'

ICS will join the World Trade Organization (WTO) Ministerial Conference (MC12) in Geneva this week, as shipowners' global trade association launches 'Shipping Policy Principles for Pandemic Recovery', setting out Calls to Action to governments as national economies seek to recover from the COVID-19 pandemic.

“

**Building block for discussions between the shipping industry and governments**



WTO Director General, Okonjo-Iweala, has proposed a formal Dialogue between the WTO and the maritime transport sector, highlighting the importance of collaboration between the WTO and the global shipping industry which moves about 90% of global trade.

The International Chamber of Shipping (ICS), alongside other leading business organisations, is joining WTO Ministers from across the world in Geneva this week, aiming to deliver concrete results at the organisation's upcoming 12th Ministerial Conference (MC12).

This Dialogue will serve as an opportunity for senior government officials and industry to exchange views on critical issues and challenges confronting the Multilateral Trading System, in the context of recent developments impacting the global economy, including global energy crises and recovery from COVID-19.

Speaking ahead of the upcoming Ministerial meeting, Guy Platten, Secretary General at ICS, commented:

“We were very encouraged and fully support Dr Okonjo-Iweala's message to the shipping industry proposing a formal Dialogue between the WTO and the maritime transport sector. There have been a number of developments which have further emphasised the need for WTO and industry collaboration this past year. ICS and the WTO, as the facilitators of free trade throughout the world, are united on many issues but none more so than our shared values and principles of open and unimpeded access to international markets.

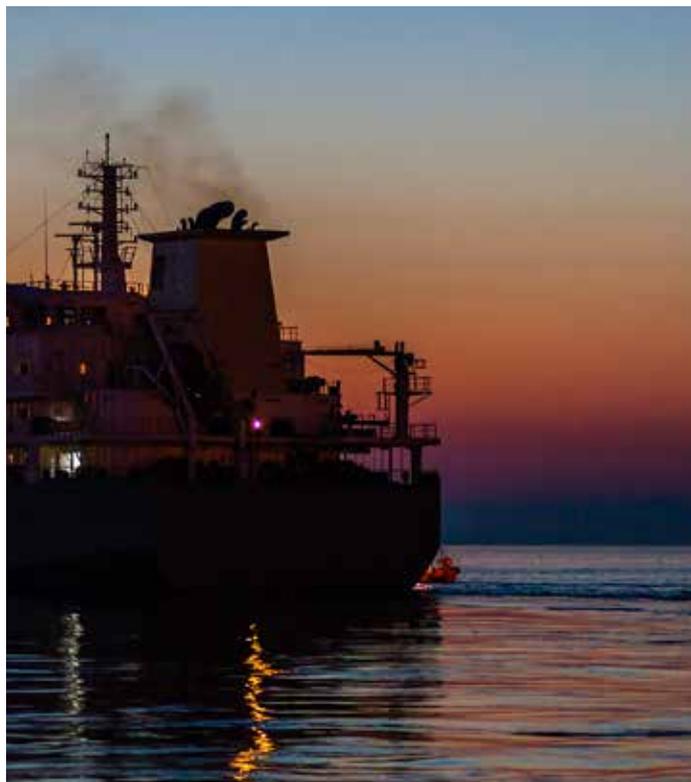
We are committed to engaging with the WTO in this comprehensive Dialogue, and hope that our ICS Shipping Policy Principles will provide a building block for discussions between the shipping industry and governments.”

The new Shipping Policy Principles strengthen the shipping industry’s commitment to the maintenance of a rules-based global trading system and a global regulatory framework which embraces open markets and fair competition; plus strict adherence to internationally adopted standards. ICS outlines ten ‘Policy Priorities’ and complementary ‘Calls to Action’ by governments in critical policy areas, to help support efficiency of the global maritime transport system which carries about 90% of world trade, the majority which now serves the economies of developing countries.



<https://www.marineinsight.com/shipping-news/ics-launches-new-shipping-policy-principles-for-pandemic-recovery/>





# IMO SECRETARY-GENERAL OPENS MEPC MEETING TO DISCUSS REDUCTION OF GHG EMISSIONS

**O**ne of the main topics during this virtual meeting will be the further discussion on the reduction of GHG emissions from international shipping.

IMO Secretary-General Kitack Lim said: "It is therefore of utmost importance that IMO continues to deliver concrete progress in transitioning international shipping from fossil

fuels to low and zero-carbon alternatives. It is our duty to join worldwide commitments of increased ambition towards tackling climate change. I appreciate the commitment and the efforts of all Member States and the industry for the outstanding work and achievements we have made so far. Now we must be brave and let our industry lead by example and provide substantial progress in our work."

There are many other issues where action by the Committee is also important and urgent.

With regard to marine plastic pollution from ships, you will be asked to progress the work by considering the marking of fishing gear, as well as other matters. Earlier this year, the global community agreed to work towards a binding instrument to address plastic pollution. In light of this, the work under the IMO Action Plan and Strategy to address marine plastic litter from ships is more relevant than ever.



“Regarding ballast water management, this session is particularly significant, as you will consider, among other issues, the data analysis report of the experience-building phase associated with the BWM Convention and decide on the way forward with regard to the next stage of this very important process, entailing the comprehensive review of the Convention.

Furthermore, you will consider the adoption of updated guidelines for brief sampling, inspection, and survey and certification of anti-fouling systems on ships, following the adoption, in 2021, of amendments to the AFS Convention to include controls on cybutryne.

“

## IMO Action Plan and Strategy to address marine plastic litter from ships

The Committee will also be invited to consider the approval of draft amendments to MARPOL to allow States with ports in the Arctic region to enter into regional arrangements for port reception facilities.

The way forward on many of the topics to be considered at this session may be complex, but by working together with determination, I have every confidence that we will ensure that shipping will continue to make a key contribution in the fight against climate change and to achieve cleaner oceans. Collaborative and considerate actions are instrumental to making sure that no one is left behind.”

<https://www.marineinsight.com/shipping-news/imo-secretary-general-opens-mepec-meeting-to-discuss-reduction-of-ghg-emissions/>

# YACHT SKIPPER FINED AFTER COMPELLING CONTAINER SHIP TO CHANGE ITS COURSE

**A** yacht skipper who compelled a container vessel to change its course in the Tauranga Harbour was infringed by the Harbourmaster of the Bay of Plenty Regional Council. The incident occurred on 5 June as the container vessel was sailing toward the Port of Tauranga in the Matakana channel.

The ship repeatedly attempted to alert the yacht by blasting the horn five times. But there was no response or change in the course of the yacht. The vessel was compelled to change its course.

Per the Regional Navigation Safety Bylaw, a skipper of a vessel below 500 gross tonnages in the Tauranga pilotage area can not impede any vessel's navigation beyond 500 gross tonnages.

Jon Peters, the Harbourmaster, has reported that there's a moving prohibited zone in the Matakana channel that is meant to protect smaller boats.

This indicates that skippers must avoid navigating 500 meters in front of and 50 meters on either side of large vessels.

There was a patrol boat in that area, and the yacht skipper was spoken to following the incident.

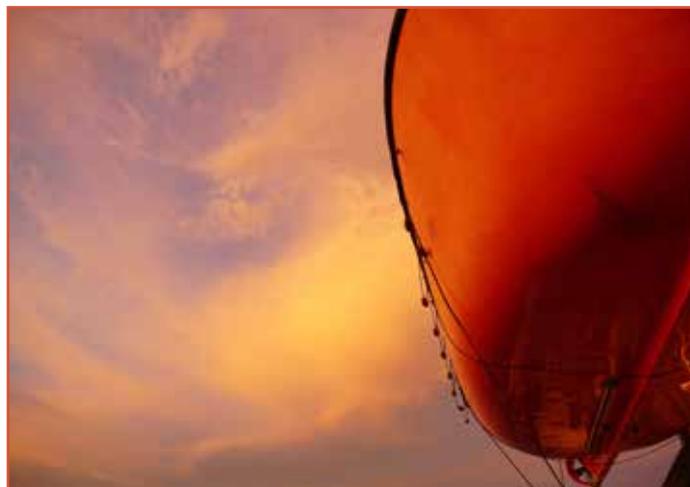
Per maritime law, the skipper was fined \$200, the maximum amount.

<https://www.marineinsight.com/shipping-news/yacht-skipper-fined-after-compelling-container-ship-to-change-its-course/>



# BOTTOM TOUCH WHILE UNDER PILOTAGE

In good weather and in darkness, a tanker took on two pilots for port entry in the early morning hours (03:00). According to reports, there was a perfunctory Master/pilot exchange after which one of the pilots took the con. The inbound passage plan had been prepared by the crew and the ECDIS Charts marked with “No Go” areas and parallel indexing. However, the actual pilot boarding area differed from the planned one hence, after pilot boarding, the vessel was not on the planned route – they were significantly to the east of the leading lights that indicated the safe entry course.



Soon after the MPX, the Master noticed that the vessel was approaching the 10 metre shallow contour and reminded the pilot that vessel's maximum static draft was 10.6 m. The pilot replied, 'Yes Captain' and soon after ordered 'port 10' followed quickly by 'hard to port'. The helmsman confirmed both orders. Then the orders 'midship', 'steady', 'port 10' and 'port 20' were given in rapid succession by the pilot and were confirmed accordingly by the helmsman.

Almost immediately a strong vibration was felt throughout the ship and the vessel started swinging to starboard. The pilot ordered 'Stop the engine'. The bridge team now knew they had touched bottom and the depth sounder was turned on. It showed 1m.

Tanks were sounded and water ingress was discovered in the port side ballast tanks.

<https://www.nautinst.org/resources-page/202223-bottom-touch-while-under-pilotage.html>

## Lessons Learned

- Once again we have the classic question of when and how to challenge a pilot. In this case the Master warned the pilot but it appears this was already too late. Being too far to the east of the port entry leading lights from the beginning was a red flag that should have been resolved before the vessel came close to the breakwaters.

# LOOKOUT OFFLINE

A small general cargo ship left port in the mid-afternoon in foggy conditions. After the pilot disembarked, the Master set the autopilot to steer 129°, increased the ship's speed to 8 knots and released the helmsman to other duties on deck.

Soon, the OOW arrived on the bridge and the Master handed him the con. The OOW called a crewmember to the bridge for lookout duties as visibility was now reduced in fog. He then checked the radar and AIS and saw no traffic of concern, so he went to the bridge computer/chart table and undertook administrative duties.

Meanwhile, a fishing vessel was inbound for the same port as the general cargo was leaving. The captain had set a course on the vessel's autopilot of 229 degrees, and its speed was about 5 knots. He was using his radar, switching between various range scales for detection of other vessels, but did not see any. As the vessel approached port, the captain left the wheelhouse and went to the aft deck to check on the deckhand.

At about this time, the OOW on the general cargo vessel now observed a target on the radar at less than 1nm, about 30 degrees on the port bow. He reduced the radar range scale to 3nm and checked the AIS for any signal from the target, but none was seen. He instructed the lookout to look for a contact and then joined him on the port side by the closed bridge wing door. They both searched visually, the OOW using a pair of binoculars.

Suddenly, they both saw the fishing boat emerge from the fog, 30 degrees on the port bow. The

OOW sounded one long blast on the ship's whistle and then switched the helm to manual control and put the rudder hard-to-starboard. This action was nonetheless too late as the fishing vessel struck the cargo vessel's port side. The fishing vessel's captain and deckhand were thrown to the deck by the force of the collision. Although the crew of the fishing vessel were later rescued, the fishing vessel eventually sank due to an ingress of water.

The report found, among others that neither vessel was making sound signals, which could have alerted them to the other's presence. Of course, with the captain of the fishing vessel not even in the wheelhouse, an effective lookout was impossible on that vessel. The report also found that, due to administrative duties that distracted from his navigation, the OOW of the cargo vessel became aware of fishing vessel's radar return when it was less than 1nm away. At that range, and with a closing speed of about 11kts, it gave him only about five minutes to assess the risk of collision and take avoiding action. The inappropriate practice of using the tank-drying equipment for cargo tank ventilation allowed the migration of explosive vapours into the bow thruster compartment.

<https://www.nautinst.org/resources-page/202222-lookout-losers.html>



## Lessons Learned

- Navigating in fog is not a time to undertake administrative duties in lieu of navigation.
- Some fishing vessels, especially those made of wood as in this report, can give poor radar returns. Constant attention to the radar is needed in poor visibility to detect small targets such as these as soon as possible.
- AIS is a useful tool for detection but not all vessels, especially fishing vessels, are so equipped.

# 9 REASONS WHY SEAFARERS FEEL FATIGUE

**S**eafarers work in a heavily regulated industry, facing a workload that is physically and mentally challenging. The good news is that there is plenty that can be done to help combat stress and promote healthy, restorative sleep.

As Captain James Foong FNI explains, fatigue can be described as a drowsy state of deprived sleep and extreme tiredness. Seafarers who are fatigued may experience diminishing cognitive ability, and a loss of interest in their work, which could endanger themselves, their colleagues, the ship they are operating, and the wider marine environment.



The most common reasons why a seafarer might be prone to fatigue are the following:

## #1 Overwork

In the past, a ship's captain had pretty much one job to do – to manoeuvre the vessel from port A to B. However, things have changed, thanks in no small part to the increase in telecommunication devices available. Nowadays, captains and their bridge teams must answer emails, sort out essential documentation and attend to overwhelming administrative work, regardless of time zones or passage scheduling. Meanwhile, the technical side of actually operating the ship still requires their full attention. Often, an officer can only take on the extra administrative work required of them during their 'rest' time.

## #2 Watch systems

Deck officers can traditionally work a maximum of 12 hours on watch a day to comply with STCW. This schedule means officers get multiple intervals of break throughout a day. However, in many cases, navigating officers work overtime when there are no extra crew members to act as back-up. Officers in this situation may only manage three or four hours of sleep after factoring in overtime and the need to eat and take a shower before getting ready for their next shift. Common allergens include metals (like nickel), cosmetic products, chemicals or paint products, fragrances and preservatives.

## #3 Environmental factors

Working at sea is remote by nature. The isolated working environment onboard ship can impose additional mental stress on seafarers who find it hard to deal with such remoteness. Additionally, issues such as severe ship motions during heavy weather; incessant chatter over the walkie-talkie and vibrations from the vessel being loaded or unloaded can add extra levels of physical discomfort that also affect a seafarer's mood and levels of fatigue.



#### #4 Suitable surroundings

Soundproof insulation is a highly effective way to reduce unwanted sound traveling into the cabins and disrupting sleep. Standard fiberglass composite and dampening acoustic sealant both offer good soundproofing properties to muffle airborne and impact noise.

Comfortable, ergonomic furniture can also help people relax during rest times and ease any aches and pains in the body, says Captain Foong. When a ship is first designed, companies should be encouraged to work with sleep experts to ensure crew accommodation can be as relaxing and effective in minimising noise as possible.

#### #5 Reduce sleep debt

It's normal for seafarers to build up some form of 'sleep debt' with irregular work hours, night shifts and/or difficulty getting at least six hours of sleep consistently. Therefore, proper planning of sleeping hours around other demands on time is key.

The sleeping environment should be dark, quiet, and well-ventilated with a decent mattress to allow easier transition into the deep sleep phase. In addition, scheduling strategic nap times can help seafarers maintain their mental and physical health.

#### #6 Competent crewing

On top of that, sufficient crewing of the ship is mandatory to ensure each officer has enough time to rest properly after each watch-keeping cycle. It is helpful for higher-ranking officers to clarify their job scope before spending too long on administrative work and documentation

that could be carried out by someone else with space in their schedule. Administration can often be better managed by a well-trained executive officer who could also take on safety inspections and audits.

#### #7 Diet, exercise and lifestyle

Seafarers must establish and maintain healthy habits if they want to enjoy a better lifestyle. Choose food that offers a good balance of macronutrients to help keep fatigue at bay. Regular exercise can help prevent work-related illnesses and improve overall health and wellbeing.

Another way to keep spirits high and protect people's wellbeing onboard ship is to develop a good range of social activities to encourage team cohesiveness, boost morale and improve cooperation. Setting up a job rotation scheme is helpful too, as changing jobs can dispel feelings of monotony and prevent seafarers from growing bored of repetitive tasks.

#### #8 Crew retention

It can be extremely tiring for experienced crew members to have to frequently train new seafarers if there is a high turnover of staff onboard ship. Finding ways to retain quality people can therefore greatly assist in reducing overall fatigue levels within the team. Establishing an open working culture where people can feel confident about raising concerns can help with this, along with excellent career opportunities, fair remuneration packages, and support with mental health and personal development.

#### #9 Connecting with the 'outside world'

Ultimately, onboard telecommunication facilities must be up-to-date to keep seafarers in touch with the outside world. People working in an isolated environment are usually extremely keen to connect to others and have their voices heard. Tiredness and fatigue is not just about not getting enough sleep. It can be exacerbated by a lack of contact with home, pressures around shore leave and inadequate attention to people's psychological needs.

<https://safety4sea.com/9-reasons-why-seafarers-feel-fatigue/>

# MEPC 78 OUTCOME IMO MAKES PROGRESS ON GHG MATTERS, APPROVING MED EMISSION CONTROL AREA

**M**EP 78 was held remotely from 6 to 10 June 2022, and DNV presented the highlights of the meeting, which included the finalization of technical guidelines for the upcoming EEXI, CII and SEEMP regulations; approval of a proposal for a sulphur emission control area (SECA) in the Mediterranean Sea; and further discussions on the revision of the IMO GHG Strategy scheduled for 2023.

## Meeting highlights

- Finalization of guidelines for the EEXI, CII and SEEMP
- Consideration of revisions to the IMO GHG Strategy and future technical and market-based measures
- Approval of a new sulphur emission control area (SECA) expected to take effect from 1 July 2025, subject to final adoption at MEPC 79 in December 2022
- Adoption of amendments to MARPOL Annex I and the IBC Code on watertight doors
- Adoption of amendments to MARPOL Annex II on the Hazard Evaluation Procedure for chemical tanker products
- Extension of the ballast water experience building phase

## Technical guidelines for the EEXI, CII and SEEMP

MEPC 78 finalized guidelines related to the EEXI, CII and SEEMP. With these guidelines adopted, the EEXI, CII and SEEMP are ready for implementation. The EEXI technical file needs to be approved before the first annual, intermediate



or renewal IAPP survey or the initial IEE survey on or after 1 January 2023. The SEEMP Part III needs to be approved and on board by 1 January 2023. The first reporting of the CII based on 2023 data is due no later than 31 March 2024.

**EEXI guidelines:** Included option for in-service performance measurements.

**CII calculation guidelines (G1):** The capacity parameter for ro-ro cargo ships was changed to gross tons.

**CII reference lines guidelines (G2):** Reference lines for ro-ro cargo ships and ro-ro cargo (vehicle) ships were updated; the reference line for ro-ro passenger ships was split in two, with a separate line for high-speed craft (HSC) and an updated line for ro-ro passenger ships excluding HSC.

**CII rating guidelines (G4):** Updates to the rating thresholds for the ship types with updated reference lines.

**Interim CII correction factor and voyage adjustment guidelines (G5):** New guideline which includes correction factors and voyage adjust-

ments for various ship types and circumstances. There was an extensive discussion on which corrections and adjustments to include. Corrections for adverse weather and extensive port and waiting time were not included at this stage and will need to be raised at the review in 2025.

**DCS verification guidelines:** Provisions for verification of the CII as part of the fuel data collection system (DCS) reporting.

**SEEMP guidelines:** Updated to include guidance on developing and verifying the SEEMP Part III (ship operational carbon intensity plan). There were minor adjustments to other parts of the guidelines.

**Port State Control guidelines:** MEPC 78 requested the sub-committee on Implementation of IMO Instruments (III 8) (July 2022) to consider if failing to implement the implementation plan in SEEMP Part III is a detainable deficiency.



“On matters related to greenhouse gas emissions, you made further progress with the discussions towards the revision of the Initial GHG Strategy, as initiated during MEPC 77 and building on the successful outcomes of the eleventh and twelfth sessions of the Intersessional Working Group on Reduction of GHG Emissions from Ships (ISWG)” said IMO Sec-Gen in his closing remarks.

#### Exhaust Gas Cleaning Systems (EGCS)

Guidelines for risk and impact assessment of the discharge water from EGCS were approved. The guidelines provide information on the recommended methodology for risk and impact

assessment that member states should follow when considering local or regional regulations concerning EGCS discharge water.

Guidance regarding the delivery of EGCS residues to port reception facilities was approved. These best practises are intended to assist both ship operators and port states in assuring the proper management and disposal of EGCS residues and stored discharge water from EGCS into port reception facilities.

#### Reporting of flashpoint in the Bunker Delivery Note (BDN)

Following the approval of amendments to SOLAS Chapter II-2 by MSC 105 in relation to the flashpoint of oil fuel, amendments to Appendix V of MARPOL Annex VI (Information to be included in the BDN) were approved subject to adoption at MEPC 79. The following new item has been added to the BDN: “Flashpoint (°C) or a statement that flashpoint has been measured at or above 70°C”.

#### Identification and protection of special areas, ECAs and PSSAs

MEPC 78 considered and approved a proposal for a Sulphur Emission Control Area (SECA) to be established in the Mediterranean Sea. The proposal is subject for adoption at MEPC 79 in December of this year, and is expected to take effect from 1 July 2025. The requirement will be the same as for other SECAs, mandating the use of fuel oil with a sulphur content of 0.10% or of an EGCS.

<https://safety4sea.com/overview-of-mepc-78/>



## SOME OF OUR NEW PROJECTS

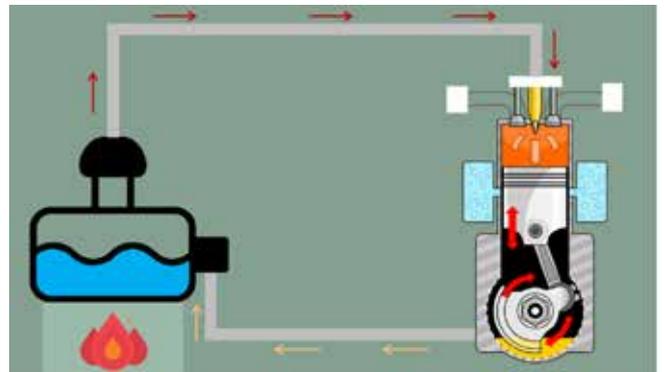


### HF-WAYS TO COMMUNICATE QUICKLY AND CLEARLY

Ways of Fast and Clear Communication: In this training, we first examine what communication is and the importance of human factors and communication in the maritime industry with various examples. Then we relate topics such as tips for being an effective speaker, the place of body language and first impression in communication, the importance of listening, the answer to the question of how we give feedback, various communication errors, and empathy with professional life and daily life.

### CBT - COOLING WATER SYSTEM

The aim of this training is to provide a general perspective on the cooling water systems of Diesel engines. In addition, it is to recognize the system components and to reinforce the causes of possible problems with examples.





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