CONFEDERATION OF EUROPEAN SHIPMASTERS' ASSOCIATIONS

CESMA NEWS

DECEMBER 2022

IN THIS ISSUE:

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CESMA WITH ANOTHER CHALLENGING YEAR

Dear colleagues, 2022 is coming to its end with all the positives and negatives for seafarers and seafaring profession. The world is slowly recovering from the COVID 19 pandemic but with continuing war in Ukraine and incertainity regarding the fuel and gas supplies we are expecting the new 2023 with moderate optimism. The problems with travel overseas during pandemic are superseeded by sanctions against Russia and difficulties to Russian and Ukrainian seafarers to leave their countries and to join ships disturbing ship manning.

CESMA had excellent AGA in Genova with important decisions and resolutions taken in favor of EU captains regarding criminalization of seafarers, navigation in VTS controlled areas and responcibilities to the shipmasters, Ukrainian seafarers certification, developments of maritime autonomous surface ships, etc. The changes of fuels used in the world economy and in the maritime transport are challenging our future job at sea. We need new knowledge about bunkering new fuels, dealing with emergencies and control of operations with them. CESMA will continue supporting EU shipmasters in their every day work on board in close cooperation with EU Parliament and Commission, EMSA, EMPA and all other maritime professional organisations.

Following information from BSMA, host organization of next CESMA AGA in 2023 the dates for the venue are 18th and 19th of May 2023 in the Naval Academy in Varna, Bulgaria. Information about hotels will be sent to the member organizations in the early 2023.

CESMA Board is happy to wish all CESMA member organizations and all EU captains Merry Christmas and happy and prosperous 2023 with fair winds and calm seas, less administrative burden on board the ships and let's remind what the ancient people used to say that "Navigare necesse est", in modern words we have to sail on board ships in order oranges, electronics, raw materials and all the other goods to be available everywhere and to reach their destinations smoothly from their places of origin.

SEAFARERS' MENTAL HEALTH AND WELLBEING

Since at least one year, CESMA is invited to meetings or seminars whose subject is the mental health or the wellbeing of seafarers.

It is something nice to see the life of seafarers recognized. Something new also. Not so far away, even if subjects already exist, they were not on the spot. Not speaking too much on about.

Why now? Remember during the pandemic, when the seafarers were not recognized as key workers, or late after some others. Despite the fact that seafarers kept the vessels sailing, loading, discharging everywhere in the world. But with a lot of constraints: crew reliefs postponed (to the next possible port, if State gave authorization for reliefs and transits), extended contracts, shore leave during call forbidden (officially the reason was to protect the seafarer!), problems for vaccinations, and probably the saddest, the impossibility of disembarking a deceased crew member. But vessels were still sailing, and seafarers still working. There were also a numerous suicidal attempts. And probably more important, at least for the owners and the managers, a considerable number of seafarers did their last contract during this period. And the already great miss of officers and ratings on board merchant vessels has increased considerably.

CESMA, as well as other maritime associations has warned the local, State and European authorities about the life condition of seafarers during the pandemic period. And maybe, after a lot of mails received from different horizons, the perception of the seafarers by those authorities has changed. To a better one. It seems this is the good consequence of the Covid.

Just anecdotes, at the Cork seminar in October, on 13 speakers, 7 were women. This is also a sign of changes in the maritime world.

So, one is speaking of mental health, well being. This covers different subchapters, such as welfare, length of contracts, nutrition, sports, fatigue, rest periods, shore leaves, vibrations, and noise and so on.

More rest, seafarers in a great majority are working in 6/6 shifts. Nutrition, of course everybody would like to received a better quality of food (and cook also). Vibrations and noise, solution is just to decrease the sea speed. Individual sports, yes but time is needed for. Etc. How to obtain that? The answer is simple: more crew, better quality crew.

But there is still one question without any answer. Who will pay for?

And in the same time, the maritime world is also speaking of autonomous vessels, with no or at least very few crew members. Then is the vessel more or less autonomous and the seafarers' wellbeing ready for the same world?

When this December Newsletter will be edited, we will be close to end of 2022 and beginning of 2023. In the name of CESMA, all Board Members would like to wish Merry Christmas and Happy New Year. May 2023 be a prosperous year for all seafarers, prosperous, healthy and in peace. AGW, we should meet in Varna for our Annual Council and General Assembly.

Capt. Hubert ARDILLON
CESMA Secretary General

SEAFARERS' MENTAL HEALTH SEMINAR
September 16, 2022 in Brussels

The program for the day was: "Seafarers' Mental Health", a vast program which would have deserved more than one day.

After a few words of welcome, Mr Livia Spera, Secretary General of the ETF, gave the floor to the Secretary General of ECSA, Mr Sotiris Raptis.

He states that the mental health of the crews is a serious threat, that working on board a vessel requires excellent condition, physical of course, but also mental and psychological.

Mental health is a challenge with many dimensions. We need to understand the risk factors & continue to implement effective tools in support of seafarers' mental wellbeing.

Building on the existing cooperation between ECSA and ETF on key topics such as training, skills, digitalization, bullying and harassment, is key to address these challenges,

For ECSA, improving the well-being of seafarers on board first and foremost requires training. Improving, again and again, the response of the crew to a problem or crisis situation allows them to work more confidently, therefore improving the mental health of the seafarer. And to improve the response of the crew, the only known way is training, tasks and situations.

Then the representative of the European Commission (Health at Work) recalled that stress, depression and anxiety existed before the pandemic. But this pandemic has exacerbated the situation. The Commission is currently preparing legislation to improve the environment on board and therefore the mental health of seafarers, taking into account various factors such as isolation, fatigue, harassment. All of these factors are enhanced by life on board and at sea.

First discussion panel entitled "Seafarers' mental health: identifying the problem"

Doctor Marcus Oldenburg – Center for Psychosocial Medicine, Hamburg – Germany, spoke about the psychological risk factors that affect the mental health of seafarers, among other things more fatigue at work due to overload, due to the reduction of crews which also led to an increase in the feeling of isolation.

Doctor Rob Verbist, International Maritime Health Association, Antwerp – Belgium, notes that unfortunately seafarers' mental health is not looked at during their pre-boarding visit. Of course, we can then do a follow-up by radio of a psychic problem. But it should also be noted that there was little or no possibility of medical monitoring at the port during the pandemic.

Doctor David Lucas, Doctor of Seafarers, Brest – France, noted that 20% of students have already suffered, and have therefore been affected by it, a traumatic event during their first contract. This implies that this type of event occurs quite frequently.

For Mr Tim Springett, UK Chamber of Shipping, the mental health of seafarers is changing. There is never a single cause for the deterioration of a sailor's mental health. There are several factors that affect it. And these factors are mostly under the control of the ship-owner or manager: living conditions, contract, work, isolation. There is not always the will from the ship-owner to watch, to invest. There are also other factors: the seafarer's family conditions and particularities and his remoteness which does not allow for intervention, even if there are easy access to appropriate services. In addition, we are more anxious when we can watch the news on the media. This has an impact that has been very significant during the pandemic.

Of course suicide can be prevented by improving mental health. But first you have to identify the problems that have been seen by others. You don't have to "deal with it".

Questions at the end of this panel:

What were the Psychosocial risks and their effects and impacts by the pandemic to seafarers? What did we learn from the health Crisis?

The Covid had a negative aspect. The most important is the ease of States to prohibit relief and shore leaves, followed by the inability of these same States to reauthorize relief and shore leaves when the situation has improved.

The question is whether lessons have been learned, have Administrations learned? The next pandemic will respond.

Second panel discussion, entitled "How to protect seafarers: best practices"

Doctor Camille Jego, Coordinator of Crapem, Saint Nazaire – France, returned to the establishment of Crapem, the meaning of this Center, namely to put in place suicide prevention tools.

Mrs Léa Scarpel, European Association against Violence Against Women at Work, Paris – France, spoke about the Association's support to victims, the training needed in schools, at all levels (students and teachers), so that these situations disappear. The theme of violence against women at work is finally taken into account in the agenda of the various European Committees concerned, which proves that it is finally becoming important.

Then two representatives of ship-owners intervened. They explained that they were very concerned about the well-being of the seafarers they employed.

(Note: which was expected, given that they were coming to talk)

One of them nevertheless announced that it was planned to pass an interview, or tests, psychological before the hiring of the seafarer (possibly before his embarkation). Interview that would determine if the seafarer was going to be contracted and to which position he would rather be directed!

Questions following the presentations:

How can we protect and support the mental health of Seafarers? How can we encourage affected seafarers to ask for help and support and make them feel comfortable about accessing mental health support services?

Answer from Camille Jego: there is no obligation to give your identity, which facilitates the possibility of hanging up, since the callback is not possible. The psychology of seafarers is special. On board, everyone has a specific job and organization. A seafarer who does not work, or no longer works, thinks that his work is left to another, hence a difficulty in approaching and hanging on at the start of the interview.

The CRAPEM being a specific device for sailors, this is reassuring.

<u>Remarks from DG Move</u>.

Unlimited internet access is an important issue for seafarers and also for families.

Regarding the problem of shore leaves, we don't know if it's linked to the pandemic!

Finally, STCW should be revised to include training in psychology.

On this subject, a person from the Maritime School of La Rochelle, France, intervened. It would be necessary to register education reference courses, in all maritime schools, and therefore to generalize them. The methods could evolve according to the functions exercised on board, and of course to provide for continuous training on the subject.

Capt. Hubert ARDILLON
CESMA Secretary General

CESMA PARTICIPATED IN THE WORLD MARITIME DAY AT IMO HEADQUARTERS

On 28th and 29th September 2022 at IMO Headquarters in London, UK IMO-UNEP-Norway Innovation Forum 2022 took place in person and online on ZOOM, UN TV and IMO YouTube channel. Moderator was Craig Eason, Editorial Director & Founder, Fathom World and Master of Ceremony was Jose Matheickal, Chief, Department of Partnerships and Projects, IMO.

The event commenced with high-level opening by Mr. Kitack Lim, IMO Secretary-General, Mr. Inger Andersen, UN Under-Secretary-General and UNEP Executive Director Wegger Strømmen, Ambassador Extraordinary and Plenipotentiary of Norway to the United Kingdom of Great Britain and Northern Ireland. They made general remarks on current situation in world shipping and present trends in connection with environment policy of UN. Setting the scene for the 2nd Maritime Innovation Forum was made by Mr. Sveinung Oftedal, Specialist Director, Department of Marine Management and Pollution Control, Ministry of Climate and Environment, Norway.

Panel 1 started with IMO policies that are driving the international maritime decarbonization agenda. The participants in the panel Harry Conway, Vice-Chair, IMO Marine Environment Protection Committee (MEPC), Amitabh Kumar, Director General of Shipping, Ministry of Ports, Shipping and Waterways, India, Plinio Nastari, President, Datagro Ltd., Patrick Verhoeven, Managing Director, International Association of Ports and Harbours (IAPH) and Nicholas Brown, Chairman, International Association of Classification Societies (IACS). They outlined the goals of international governmental organizations and shipping society regarding pollution prevention and 50 percent decrease in emission in comparison with 2008 in 2050 and 40 percent decrease by 2030.

Panel 2 Innovative practices to drive new technologies and alternative fuels for greener shipping included Rose Mwebaza, Director, UN Climate Technology Centre and Network, Madhu Nair, Chief Executive Officer, Cochin Shipyard Ltd. who described the project of Norwegian company ASKO developing fully autonomous barges working on hydrogen. Then Roland Roesh, Deputy Director, Innovation and Technology Centre

(IITC) in International Renewable Energy Agency (IRENA) mentioned their forecast for 12 percent share of hydrogen fuel in shipping by 2050. There were comments by Anton Rhodes, Project Manager, Department of Partnerships and Projects at IMO. Agnieszka Zaplatka, Policy Officer, DG Research & Innovation, European Commission gave details of the audience about activities in Europe and Horizon Europe Program.

In panel 3 Ensuring a people-centered transition to a low-zero-carbon shipping sector was more practical and close to the immediate needs of seafarers. Guy Platten, Secretary-General, International Chamber of Shipping (ICS)told the audience in detail about New Safety Guidelines on emissions and need for training of seafarers stressing on lack of trainers and lack of investment on that. Jean Ver P. Pia, Maritime Attaché at Embassy of the Republic of the Philippines in London stressed on need of training of seafarers on decarbonization which is not yet in STCW requirements and it should be included in the new revision of the convention. The same was mentioned in the presentation of Despina Panayiotou Theodosiou, President, WISTA International in which she pointed out the necessity of ensuring possibility for young students to do their seagoing cadet training as there are not enough positions on board ships. The other two participants in the panel Heike Deggim, Director, Maritime Safety Division, IMO and Aykut Ölçer, Nippon Foundation Professorial Chair in "Marine Technology and Innovation"/ Director of Research & Head of Maritime Energy Management Specialization, World Maritime University explained the future ship as safer, smarter and greener and again mentioned the need for training of the personnel on board future ships meaning future seamen.

The second day was as busy as the first one. It began with panel 4 Financing new technologies for greener shipping. Gianpiero Nacci, Director, Green Economy and Climate Action, European Bank for Reconstruction and Development, Dennis Fritsch, Associate Programme Lead Nature, Economy Division, United Nations Environment Program Finance Initiative, Jae-uk Shim, Senior Manager Exim Bank, Republic of Korea and Andrew Losos, Senior specialist in Sustainable Transportation, World Bank discussed the bottlenecks in financing green shipping. Technology and expertise exist but it difficult to make capacity building as it is not clear which fuel will be acceptable and which one will be not. That creates problems with infrastructure for fuel supply on ships and fleet renewal as the ship owners plan and build ships for longer periods and huge investments are required

on the same time when there is a lot of uncertainty with green shipping solutions and especially allowed fuels to be used on board.

Panel 5 Green transformation: a voyage together through technical and technology cooperation and inclusive innovation included Louise Proctor, Head of Program Management at Technical Cooperation Division at IMO, Gyorgyi Gurban, Head of Projects Implementation, Department of Partnerships and Projects at IMO, Roel Hoenders, Head of Air Pollution and Energy Efficiency, Marine Environment Division at IMO, Nancy Karigithu, Principal Secretary in State Department for Shipping and Maritime in Ministry of Transport, Infrastructure, Housing, Urban Development and Public Works in Kenya and Mandana Mansoorian, Vice-Chair at IMO Technical Cooperation Committee. Detailed information was presented to the audience about 2060 IMO Agenda on sustainable development in shipping and zero emission targets. Several major projects were planned at IMO on technical assitance to IMO member states in connection with optimization of passage planning, cargo operations, etc.

The last panel 6 Developing inclusive and innovative ecosystems for greener shipping gathered together Tan Hoe Soon, Assistant Chief Executive on Corporate and Strategy in Maritime and Port Authority of Singapore, Hans-Christian Wintervoll, Head of the Service Center for Green Fleet Renewal, Green Shipping Program, Anne Katrine Bjerregaard, ESG Strategy Lead at Mærsk McKinney Møller Center for Zero Carbon Shipping, Ervin Vargas Wilson, Technical Director at Maritime Technology Cooperation Centre Latin America, Shi Xin, Vice-President, Shanghai Maritime University and Prakash Persad, President of The University of Trinidad and Tobago. Creation of Maritime Big Data Center for measuring and control of emissions is next step of developed in several regions Maritime Single Window. It is a tool for share of experience and at the same time future effective means of coordinating the GHG emissions control in shipping.

The closing session was made together with presentation of IMO Partnerships Program and Signing Ceremony of new partnership between IMO and Commonwealth. Mr. Kitack Lim, IMO Secretary-General and the Rt. Hon. Patricia Scotland KC, Commonwealth Secretary-General signed the program with pleasure explaining the long standing partnership between two organizations in reaching common goals.

The World Maritime Day finished with reception at IMO Headquarters where all the participants in the forum together with official representatives of IMO member states and IMO Goodwill Maritime Ambassadors exchanged their view on the problems in shipping and items discussed during the two days forum on decarbonization. From our side concern was raised about lack of preparation of coastal states to react in case of incident with new fuels and proper advises to seafarers how to operate in such incident, whom to communicate and where to head and stay in order to save the people in the area and environment.

Capt. Dimitar Dimitrov, PHD, FNI,
CESMA President, IMO Goodwill Martime Ambassador for Bulgaria

KRAJLICA MORA RIJEKA

Croatian Captains Association "Udruga Pomorskih Kapetana Sjevernog Jadrana" KRALJICA MORA RIJEKA (Captain Association of North Adriatic – Queen of the Sea Rijeka) celebrated its 20th anniversary of foundation.

CESMA was honored that they invite Deputy President, Capt. Giorgio RIBARIC, to participate to this event.

Mentioned Association was the first Croatian Association which joined CESMA. Among present members were even two foundation members, Capt. Juraj KARNINCIC (President) and Capt. Anton MAVROVIC. We must mention that before Association Kraljica Mora, two individual members from Croatia (Rijeka region) were already CESMA members, Capt. Ivo KUCIC and Capt. Giulio MALJEVAC.

The session of the 20th anniversary was hold in Rijeka City Hall on 6th October 2022. Capt. Juraj Karnincic (President of Kraljica Mora Rijeka) open the event on which were present several members of Association Kraljica Mora Rijeka and guests. Among the guests was Capt. Zlatan MARUNIC – Head of Section for Maritime Domain and Concessions of Primorje-Gorski Kotar Country which intervened with his ceremonial speech. Several members are still active Sea Going Masters, others having found their employment ashore as Capt. Rajko JURMAN who is Head of Department Commercial Affairs at Port of Rijeka Authority.

The main day event was a lecturing presentation of Capt. Berislav VRANIC (IMO Goodwill Ambassador – Croatia) on theme NEW TECHNOLOGIES FOR GREENER SHIPPING: IMO CARE FOR SHIPPING. Hereafter is the lecture of Capt Vranic.

At the end of lecturing, was a successful debate among the present podium.

Capt. Giorgio Ribaric
CESMA Deputy President

WHAT IS GREEN SHIPPING?

The environment must be considered in all the details of shipping, from a build of a new vessel through its scrapping. The International Maritime Organization (IMO) is helping to reduce the impact on the marine industry by regulating exhaust emissions, anti-fouling, ballast water, and more.

The industry will become more environmentally friendly by regulation. The IMO has called for ships to **halve their total greenhouse-gas emissions by 2050**.

Carbon emissions and other gases are caused by the burning of fuels in the environment. „Green Ship" is a name given to any seagoing vessel that contributes towards *improving the present environmental condition* in some way. Green ship technology adopts procedures to decrease emissions, consume less energy, and be more efficient.

A green ship also means using new technologies such as advanced hull and propeller systems, exhaust gas scrubber systems, waste recovery system, exhaust gas recirculation system etc. Apart from this, use of right grade of fuel for a particular engine also reduces carbon emission and fuel consumption. This also results in less routine maintenance, demanding reduced human labor and energy.

The predictions of CO2 atmospheric concentrations by 2050 are between 480 ppm to 550 ppm with a corresponding increase in global temperatures from 0.5 to 2.5°C. Shipping contributes 3.3% of the total human CO2 emissions. It is therefore important to start generating green and intelligent solutions based on new strategies and technologies, which would help follow a green agenda in shipping. The largest source of energy loss in a ship is in the propulsion system.

IMO's Department of Partnerships and Projects (DPP) was established in 2020 to serve as the gateway for developing partnership opportunities with a wide range of external partners, including IMO Member States, UN agencies, financial institutions, and the private sector. Decarbonization, marine plastic litter and biofouling are among the topic areas already being addressed by the major projects of IMO,

The guidelines for a ship to be called a green ship are as follows:

1. Switching to Low-Sulfur Fuel

The move to lower sulfur content allows for applying advanced emissions control technologies that substantially lower the harmful emissions from diesel combustion.

2. Slow Your Ship's Travel Time

Large ships might burn 280-300 metric tons of high-sulfur fuel oil (HSFO) a day at high speeds, but only 80-90 metric tons a day at slower speeds. Slower travel may cut costs and help reduce emissions.

3. Incorporate a Ballast-Free System

These ships haven't been built yet. The idea has been existed since 2001 and the Faculty of Michigan University patented the invention in 2004. A ballast free system would completely reduce the risk of pollution. Ballast water brings unwanted species. For example, 185 species of flora and fauna which did not previously exist were found in the Great Lakes alone. A ballast-free ship would reduce the potential hauling of contaminated water.

4. Use LNG as Marine Fuel

LNG fuel helps in the reduction of air pollution. A small percentage of cargo ships are expected to run on liquefied natural gas (LNG), a fuel that has only recently advanced in the marine market.

5. Implement an Exhaust Scrubber System/Sulfur Scrubber System

Some ships limit their air pollutants by installing exhaust gas cleaning systems, also known as "scrubbers". This is accepted under the MARPOL Convention as an alternative means to meet the sulfur limit requirement.

The system is geared towards reducing sulfur or capturing sulfur before it escapes through the exhaust funnels.

Bloomberg estimates some 4,800 vessels will be scrubber-equipped by 2025.

World's First Zero-Emission Wind and Hydrogen Power Cargo Ship

The project is a partnership between two Norwegian industrial companies that have agreed to share the vessel's operations. The two companies have a 15-year agreement for the operation of the vessel.

A family-owned shipowner based in Trondheim, Norway, got a permition to develop, build and operate a zero-emission cargo ship.

The current designs for the self-loading bulker call for a length of 100 meter with a deadweight of approximately 5,500 tons.

The ship is expected enter operation in early 2024.

Capt. Berislav Vranic
Awarded as Chartered Master Mariner (CMMar) on 26th October 2022

SEAFARERS WELLNESS
October 7, 2022 in Cork

Organized by Nautical Institute Ireland Branch and Irish Institute of Master Mariners in association with Dept. of Maritime Studies NMCI

Welcome from NMCI (Mr Cormac Gebruers, Head of NMCI, Capt Sinead Reen, Head od Department of Maritime Studies), Irish NI (Capt. Steve Malone, Chair of Irish NI) and Capt. Dermot Gray (President of IIMM).

The chair during this day is held by Capt. James Robinson, DSM, FNI.

Looking after the Human Factor in Large and Complex Safety Critical Systems

By Mrs Alison Kay, Trinity College Dublin

How to support seafarers, and when? At sea, in port, on leave?

There is a system approach for seafarers between safety and wellbeing. It is related to loose of relationship, activities, exercises, diet, and fatigue. The goal is to eliminate, mitigate, or control hazards which are the states that can lead to these looses.

It could be considered three levels of "safety":

1st Humans are predominantly seen as a liability or a hazard.

2nd Humans are seen as a resource necessary for system flexibility and resilience.

3rd The system must be designed to allow humans to be flexible and resilient and to handle unexpected events.

Today we are between levels 2 and 3: humans are expected to prevent or respond to hazards and to be flexible and resourceful when they occur.

There are too often falsified records of work/rest hours. In Europe around 20% of accidents are related to stress.

About wellbeing, following basic human rights are (too often) not met:

– Quality food
– Decent accommodation
– Decent recreational facilities
– Shore leave
– Internet access
– Support for bullying and harassment.

Consensus on STCW learning outcomes/competences in medical training of designated officers and crew in merchant marine

By Dr. Nebojsa Nikolic, International Maritime Health Foundation

The aims of the workshop of the Foundation are:

– To follow the recommendation from the 4th and 5th session of IMO HTW Sub-Committee on further actions on revision of model courses 1.13 on Elementary First Aid, 1.14 on Medical First Aid and 1.15 on Medical Care.

– To follow the IMO MSC(100) conclusion 17.8. The Committee also agreed that Miller's Pyramid of Assessment (MSC 100/17/12), which provided a framework for assessing clinical competences to be used in the process of defining learning outcomes / competences in Model Course 1.13, 1.14 and 1.15 should be considered in the context of the work.
– To follow the statement from the IMO HTW(6): development / revision of competences is necessary and as this requires new output from MSC, nothing stops any other party to develop them if they want.
– To prevent the running method of curriculum design in European Medical Schools.
– To evaluate the learning outcomes / competences for undergraduate Medical Education in Europe in the context of medical training for the designated medical personnel on board merchant ships.
– To reach consensus on learning outcomes / competences in medical training of designated officers and crew in merchant marine.

Conclusion: a new Medical Guide should be published.

The Human Element

By Capt. John Dolan, Master Mariner, The Standard Club Ltd

First he came back on the Covid periods:

Early cases:

Undiagnosed illness on board – Fear of the unknown – Port / State paralysis – Unavailability of medical facilities – Quarantine – Vessel and medical assistance delays – Cargo deterioration – Repatriating deceased crew – Deviation – Crew change crisis – Charter party disputes – Cover queries.

Challenges and Club Cover:

Effect of disruption – Difficulty obtaining clear answers – New considerations – Differences in wording between IG Clubs – Quarantine and disinfection rule – Correspondent relationships – Industry resilience and adaptability – Rules stand up to scrutiny – Large scope – Flexible.

Action by the Club:

Established internal Covid team – Cover discussions with senior claims and underwriting personnel – Reviewed club rules – IG Covid Working Group – Dedicated Covid webpages – Daily website updates – Port tracker – Club FAQs – Interpretation and rewording of Quarantine rule – Charter party clauses – Data on Cases, trends and Acclaim fields.

Cases Now:

Routine – Club familiarity with case handling – Members / brokers understand cover and clauses – Correspondents know what is expected – Regular correspondent updates – New issues resolved quickly – Crew change crisis resolved – Reliability of tests – Interpretation of tests results – Time and money saved.

What Members can do:

Living / working safely with Covid-19 – Knowing your ports and their requirements – Revisit and re-test procedures – Plan medical assistance, emergency disembarkations, deviations – Covid-19 testing and vaccination – Agreements with hotels and other facilities – Disinfection providers – Use correspondent and agent knowledge – Revisit charter party clauses – Seafarer mental health and wellbeing.

Back to a normal (non Covid) situation, why ship's safety systems fail?

Ships are dangerous places to live and work – Lack of knowledge – Lack of experience – Lack of judgment – Lack of maintenance – Lack of familiarization or too familiar with risk/danger (complacency).

But there are underlying reasons: confusion (poor experience, hierarchy, cost-driven, regulations, distraction) – Crew behavior (short-cuts, ignoring root cause, waiting to be told) – Circumstances (commercial pressure, ship design problems, 'it's all right' behavior).

Ship operation and wellness

By Capt. Aine Hyde, from her vessel at sea in the North Sea

Captain on a support vessel for crude and gas platforms. 118 crew members, including 4 women with several European and South African nationalities.

To be able to board a PCR test is required. Of course, on board talking is a lot about covid. As there are divers, if the covid come on board, it would be much more dangerous for them because they work in a confined atmosphere.

The crew works in 6/6 shifts for the most part. Rotations are on a 3 months on and 2 months off basis. All the crew members being not relieved at the same time, there are several crew changes per week. This posed a problem during the covid period, with crew changes being postponed without having any idea of the next date.

As far as well-being is concerned, there are games and sport equipments on board, plus wifi access.

What could be improved for well-being: having free internet connection and better quality of food.

Diet and nutrition

By Dr. Fiona O'Halloran, Munster Technological University

Do not mix up 'good food' and 'health food'. Health food helps to the prevention of Non Communicable Disease (NCD).

Following a survey, titled "Eating behavior and weight development of European and Asian seafarers during stay on board and at home", it appears that more than 45% of seafarers are overweight and 10% obese; also eating habits and nutrition on board are different than at home, mainly due to culturally differences.

Outcomes:

Eating habits and dietary intakes are generally unhealthy – Preferences for energy-dense, sugary, fatty, salty foods – Seafarers are at high risk of CVD, type 2 diabetes and becoming overweight compared to general population.

Recommendations:

More studies needed to look at 'on board' vs 'at home' effects – Dietary assessments and Nutrition interventions are needed, but need to be appropriate – Public Health 'ethos' needs to be promoted – To make homogenous International regulations on nutrition

Fitness

By Mrs Joan Dinnen, Munster Technological University

The human genome evolved to support a physically active lifestyle about 8,000 BC and has remained unchanged in this regards for 10,000 years.

Sedentary lifestyle does not maintain the required metabolic demands and muscle loading for good health. The absence of exercise is linked to many maladaptations that lead to chronic disease.

It could be: Coronary artery disease, Hypertension, Some site specific cancers, Type 2 diabetes – Depression – Osteoporosis – Physical frailty.

And seafarers are not excluded from the sedentary lifestyle.

Seafarer Supports in the Port of Cork

By Capt. Nick Bourke, Port of Cork

Problems encountered or feelings by seafarers:

Safety (ports have inherent risks) – Remote locations with few (or very few) local facilities – Misuse of ISPS – Long public transport routes – Access to internet – Access to directions and information (but less now with Smartphone) – Language – Currency – Isolation – Frequently the

forgotten workforce and paranoia of 'outsiders' (specially during covid), a kind of xenophobia.

Cork's advantages for seafarers:

Cruise Terminal and city berths have great access to town and city – Tivoli relatively close to city with easy access – Cork is a safe place to go ashore – Public transport available – Wifi project – Seaman's mission – Liner route traffic.

The cork's Wifi project in 4 phases:

1 Sea-Fi (Great coverage, but some limitations with proprietary equipment and bandwidth)
2 Own access points Cobh Cruise Terminal and Ringaskiddy DWB
3 Own access points extending to Tivoli Docks and CCT (Q4-2022)
4 In concept (City Quays / Private Berths / Port Wide)

The seaman's Mission:

Allow access to all berths and assist with Seaman's Mission program
Give access to Sim cards, welfare items, trips away from the port, social contact
Storage facilities for mission

Covid Vaccination

Issues: Forgotten Workforce – Not on the system (no social number) – No easy way to process – Multiple vaccinations required – Pan jurisdiction alignment

What was done: Status quo not accepted – Our relationship used as part of the interagency Emergency Management – Plan produced which led to Cork being first port in Ireland to deliver C19 vaccinations to seafarers (manual interventions to allow process, temporary medical ID delivered, communications from local agents, other Irish ports able to use the HSE Cork model, other ports or jurisdictions accepted multi vaccine for the second dose).

Fatigue in the Maritime Industry

By Dr. Claire Pekcan, Safe Marine

We were not designed for working 24/7. We need an average of 7/8 hours sleeping daily.

Following a survey done with German Pilots on their sleep quality, it appears (score 1 being the best and 14 the worst), and the score increasing with the age:

Off duty gives an average of 2.2

On duty (but at home): 5.8

On duty (on the pilot boat): 10.5

And for the Pilot's spouse, the average is 3.1 when Pilot is off duty and 5.5 when on duty at home.

Other point of interest on the sleep quality: day shift workers have an average of 1.5 and night shift workers of 5.9.

The consequences of chronic fatigue are: sleep deprivation, stress, physical exposures, disease, metabolic disorders, cardiovascular disorders, gastrointestinal disorders, and loss of mental and physical alertness, psychosocial effects (troubles du comportement).

To fight against the fatigue, humans have the self-control, but this is a limited resource; below is a scale of this resource and how we use it:

The more we have to

Do something safely when we want to do it quickly
Follow procedure when we want to take a short cut
Persist at something even though we are tired
Concentrate on what we are doing so as not to get distracted
Bite our tongue
Pretend we are in good mood when we are not
Deal with negative emotions

The more we use

Counselling in the NMCI The Word from Over the Horizon

By Mr Paul McCarthy, MTU/NMCI

The levels of depression, anxiety and stress are increasing as the level of the meaning is more and more difficult. And more long is the time spent above the normal end of contract on board a vessel, more weak are the capacities of meaning, reflexion and understanding.

What companies can do?

Raise managers' awareness of the consequences for safety of their actions
Consider investing in human factors education for shore personnel
Monitor staff emotional wellbeing
Implement fatigue risk management to enable recovery from stressful events
Mentor / coach company agents in safety leadership and human factors

What seafarers can do?

Not pretend you are in a good mood
Do not hide how you really feel
Do not think about things over and over
Do not engage in 'if only' type thinking

But

Find humor in the situation
Try to think about how the other person feels
Keep busy on other things
Seek out people who make you feel good
Tell yourself that you can't control everything

Stress Management for Sea

Psycho-education on stress, stressors and stress reactions
Simple stress management skills such as calm breathing and progressive muscle relaxation
Basic assertiveness skill including ways of saying no to inappropriate requests
Resilience
Exercice
Mutual support

The words from over the horizon

Bullying : one of the biggest issue
Stress: isolation, homesickness, relationship difficulties, cultural issues vs multi nationalities
Depression and anxiety: an alarming level for younger generation world wide
Depression pre, during and post contracts
Suicidal ideation
Cocaine
Excessive porn use

Improving the mental wellbeing of seafarers

By Mr Simon Grainge, International Seafarers' Welfare and Assistance Network (ISWAN)

ISWAN is a free, 24-hour, multilingual helpline for seafarers and their families. ISWAN is concerned by contact with family, shore leave and welfare facilities, living space, pay, food, keeping fit and healthy, training and personal development, interaction with others, workload.

Actual themes for calls are: covid, Ukraine, sexual assault and harassment, abandonment, fatigue, mental health and suicide.

To improve mentally healthy ships, we should:

Identify the risks to mental health
Implement risk management strategies
Raise awareness of mental health issues
Reduce stigma and negative consequences of seeking help
Promote mentally healthy lifestyles
Establish effective support and response mechanisms

Taking care of our mental health is just as important as looking after our physical health. There are several factors that can impact seafarers' mental health, such as job stress, family pressures and limited shore leave. Being away at sea can also make it difficult to access support.

However, ISWAN has developed a range of self-help resources to help seafarers manage and cope with low mood, stress and fatigue, and maximize their overall psychological wellbeing. It consists of a series of three self-help guides, a range of mental health and wellbeing info graphics, and an audio relaxation exercise. The ISWAN training will help participants to recognize early signs of crew who may be struggling and develop the skills needed to respond effectively. They are courses designed to be delivered online. The courses are developed in three modules.

Module 1: Introduction to Mental Health

Builds an awareness of mental health and wellbeing, addresses stigma and common myths, and introduces a better understanding of the language and terminology around mental health and psychological wellbeing.

Module 2: Recognizing Signs and First Response

Builds on Module 1's introduction to mental health awareness, develops participants' capacity to recognize signs and symptoms of crew members who may be struggling with their mental health, and introduces the use of Psychological First Aid (PFA) as a framework for initial response.

Module 3: Suicide Prevention

Provides a more advanced level of training to those who have completed Modules 1 and 2 and would benefit from a greater understanding of suicide awareness, risk and prevention.

The development of a standard for Mental Health Awareness and Wellness Training for sea and shore staff in the Merchant Navy

By Dr Chris Haughton, Haugton Maritime

Started with an exercise on occupational time (work, garden, associations, time spent in family, etc.) with differences between what is the actual time and would be the wished time allowed to each part.

Then words on the publication from MNTB (merchant Navy Training Board) on the training for seafarers for mental health awareness and wellbeing, training which is on voluntary attendance with no formal assessment, and possible to be delivered on-line.

Results of the training for seafarers and/or shore personnel:

To describe different types and causes of poor mental health
To recognize changes in behavior in self and others
To avoid judging and stigmatizing others
When concerned, to state actions to take refer or signpost others
To recognize measures that promote wellbeing

Healthy people at sea – joining the dots

By Dr Imogen Stilz, Consultant Occupational Medicine at Shell Health

Dr Stilz gave a view on what Shell is doing for their seafarers and shore personnel.

Capt. Hubert ARDILLON
CESMA Secretary General

III INTERNATIONAL CONGRESS BILBAO – 17th to19th May 2022
500 YEARS OF THE FIRST ROUND THE WORLD

Organized by our colleagues from the AVCCMM (Asociacion Viscaina de Capitanes de la Marina Mercante), the CESMA was invited to speak on the last day. Below is a report of all the presentations we attended as representatives of CESMA (Vice President Captain Mariano Badell and Secretary General Captain Hubert Ardillon).

This is the second part of the presentations with two main titles: Health and Environment.

Wednesday, May 18th *(part 2 on 3)*
HEALTH ON SHIPS AND THE JOB SECURITY IN THE PORT MARITIME FIELD

<u>10- Comprehensive safety in maritime activity</u>
by D. Fco. Javier Inda Ortiz de Zarate. Deputy Technical Director of OSALAN.

The sea being an inherently dangerous place, people engaged in maritime activity are therefore exposed to dangers of all kinds.

Maritime activity encompasses a set of very different areas of work: shipbuilding, repair, deconstruction, theoretical and practical training, organization of institutions, research, development, exploitation of energy resources (fossil and renewable) and marine food, flow of goods and people, port facilities, preservation of marine ecosystems, protection of heritage and culture. Talking about safety in maritime activity requires integrating many visions, and involving the evolution of society, technological development, globalization and the complexity of regulatory regulations. Professionals practice their profession in an increasingly harsh environment.

The answer lies in the development of infrastructures, more "green" and connected ships, the exploitation of "big data", artificial intelligence and cybersecurity. This evolution must be analyzed alongside the accident rate, therefore a preventive approach that can be far removed in terms of safety and security from what exists today. All economic, industrial, technological and regulatory uncertainties have an influence on safety.

Today the most common risks in maritime operations are related to navigation, maneuvers, mooring, access (on board and to work areas), the environment (physical, chemical, biological), the workspace (machines, tools, and stability of surfaces), the products used, the organization of work (function, rhythm). Therefore there could be falls (people and objects), jamming and shocks, suffocation or intoxication, as well as confined spaces, fires, explosions, electrocutions, hygiene (physical, chemical or biological), ergonomics (handling, postures) or psychosocial (mental load, fatigue, discomfort, lack of communication), but also other risks in terms of public health and the environment, pollution (air and water), importation of exotic species, as well as acts of crime (piracy, terrorism).

The ships of the future, and their crews, might not be exposed to the same dangers as

today. The concept of «intelligent ship» will be developed with the increasing use of information technologies and the reduction of crews, favoring the remote isolation of the ship and therefore its cybervulnerability. And the same will be true for port infrastructure and renewable marine energy. And the professional risks of people will move to where they will perform their duties, remote control centers, rapid maintenance operations.

Finally, in maritime activity, women continue to be victims of discrimination (prohibition on taking training courses, access to certain functions, reluctance to hire, delayed or stopped promotions, intimidation, sexual harassment and /or violence). They also often have to prove more than a male crew member. In terms of equality, there is still a long way to go.

11- Securvy in the Age of Discovery

by D. Javier Angel Almazan Altuzarra. Doxctor of Medicine

Scurvy, caused by a lack of vitamins, appears from the beginning of the so-called era of discoveries or great navigations. It was in the Netherlands that we first heard about this disease. In 1541, the Dutch physician Jhon Echth wrote a short treatise in Latin in which he adopted the word Escorbutus as a Latinized form of the Danish Scorbuck whose distant origin comes from the Icelandic skyrbjûgr, populations subject to long winters. The symptoms described are swelling, exulceration and mycosis of the gums, stains and fatigue.

It was during Vasco da Gama's journey from Portugal to India (1497-1499) that one of the first descriptions of scurvy was given. On July 8, 1497, a fleet of four ships set sail from Lisbon, under the command of Vasco da Gama. On July 27, they doubled Cape Verde, but unlike Bartolomeu Dias, they did not continue along the coast, but pulled a big tack, later known as A Volta do Brasil, to take advantage of the winds and currents, which brought them close to the Cape of Good Hope on 7 November. They then continue along the east coast of Africa, arriving in Mozambique on March 2 and Mombasa on April 7. Many men are sick with swollen feet, hands and gums, and they can't eat. Two rafts bring them from the King of Mombassa a ram, oranges, lemons and sugar cane. On April 24, they set out across the Indian Ocean to Calicut, reached without incident on May 20. Then departure back to Portugal on August 29, but following a crossing of the Indian Ocean three times longer, there were many deaths among the crew with these symptoms of swelling. On January 2, 1499 they reached Melinde and the captain sent ashore to bring back oranges and other fruit. And they were able to leave after five days of rest.

During Juan Sebastián Elcano's first circumnavigation between 1519 and 1522, there were three episodes of scurvy, in the Pacific, the Indian Ocean and then the Atlantic.

In the Pacific from Strait to Zebu, Pigafetta reports that for three months and twenty days there was no fresh food. The men's gums became so inflamed they could not eat and most felt ill, 21 of who died.

During the unsuccessful return voyage of the ship Trinidad, there was a succession of deaths throughout September and October. The diet consists of rice and water. When it was decided to return to the Moluccas, thirty-one men are already dead.

The return of the Victoria saw the crew feed on wheat and rice for almost five months, because they avoided calling the Portuguese possessions and therefore resupplying, as far as the Cape Verde Islands. The number of deaths during the months of May and June and the cessation of deaths after their arrival in these islands clearly demonstrate the presence of scurvy. In the crossing of the Atlantic, at least fifteen men would have died.

Each times the same considerations: several months of navigation without bringing fresh food, succession of deaths, and rapid recovery after eating fresh vegetables.

This is confirmed by the report of Ginés de Mafra who attended the first autopsy on the high seas to try to elucidate the cause of so much mortality, carried out by the Sevillian doctor and surgeon Juan de Morales: people began to die, and on opening one to see what they died of, they found the whole body filled with blood as if all the veins had been opened. Description

corresponding to the vascular fragility and the spontaneous haemorrhages which characterize avitaminosis, the diagnosis of scurvy which will be determined five hundred years later!

Other voyages saw significant numbers of scurvy victims.

During Jacques Cartier's second voyage to Canada, which left with three ships and one hundred and twelve men, the ships were trapped by the ice from mid-November to mid-April. Cartier isolated the men because a disease had developed among the Indians. Despite this, the disease spread in the crews, same symptoms of swelling, blood stains, etc. Cartier also decided to open a deceased and discovered the same thing as on the Trinidad. Mid-February, twenty-five sailors were dead and forty more were on the verge of death. The disease continued its course until the day when Cartier found a son of Donnacona, local Indian chief, in perfect health whereas he had been sick ten days before. The Huron Indians told Cartier that he was cured by the juice extracted from the leaves and bark of a tree called Anneda. They provide it and the result on the crew was immediate.

During the Loaysa expedition, the crossing of the Pacific was also very deadly, probably because of scurvy. More than forty men died before arriving in the Moluccas, including Juan Sebastián Elcano, due to the lack of fresh food for more than a hundred days and it is especially in the last forty days that there were the most deaths.

12- Spanish Maritime Health: Role of the Social Institute.

By Dna. Elena Martinez Carques. General Director of the Social Institute.

What are the current activities and future prospects of the Maritime Health Program of the Social Institute of the Marine (ISM), related to the innovation of information and communication technologies (ICT). Given the uniqueness of work on board, actions in maritime health are based on the fact that the concept of health in the maritime environment requires the implementation of preventive health systems, complementary to care, in a global and planned way, which allow provide health care and thus minimize morbidity factors.

Current activities

The maritime health program is based on two well-defined but closely related action pillars, the preventive level and the care level.

The prevention sub-program, developed in the 45 maritime health centers located along the national coast, aims to promote the protection of the health of active people, controlling accidents and illnesses, caused by work on board and conditions that reduce risk. This sub-program includes pre-boarding medical examinations (compatibility of the candidate's psychophysical conditions with job characteristics, absence of danger to the health and safety of the individual and the rest of the crew), periodic review of mandatory first aid kits on board and the prescription of medication, medical qualification training for seafarers (Training Plan co-financed by the European Social Fund), inspection of the hygienic and sanitary conditions of merchant and fishing vessels, actions in the protection and promotion of health at work for the maritime fishing sector (epidemiological studies relating to the most widespread diseases or accidents in the sector, promotion of healthy habits, prevention of relevant pathologies, vaccination campaigns such as influenza , tetanus, hepatitis B).

The care sub-program has a curative function for sick or injured persons on board. It can be the Centro Radio Médico Español for telemedicine, permanently listening for advice by radio or telephone from a ship in any maritime area of the globe. This Center can also carry out teleconsultations through videoconferencing systems with the Central Defense Hospital Gómez Ulla or with ISM medical ships. This Center can also order the evacuation of any patient if the seriousness of the case so requires. There are also the ISM support ships "Esperanza de Mar" and "Juan de la Cosa", the only ships of this nature in Europe, located in the areas with the highest concentration of the Spanish fleet, providing, depending the situation, medical and technical care and assistance "in situ" on board the requesting ships with portable medical equipment or on

board the care ships going, if necessary, to clinical stabilization for transfer to hospitals on land. Finally, it can be through the Foreign Assistance Centers of Nouadhibou (Mauritania), and Mahé-Victoria-New Port (Seychelles) whose doctor can go to Diego Suarez (Madagascar) and Walvis Bay (Namibia) for medical assistance.

Future prospects

Strengthen existing systems by maintaining quality standards, and excellence in management.

Promote coordination and collaboration with different health sectors (defense, foreign health, autonomous communities, occupational accident mutuals, National Institute of Toxicology) and non-health sectors (Directorate General of the Merchant Navy, Labor Inspectorate, consulates, etc.).

Strengthen the continuous monitoring of the health status of workers as well as the detection of signs of work-related illnesses.

Strengthen, innovate, modernize and adapt the activity to new information and communication technologies, faster and more objective remote medical care, by automating certain processes such as making appointments.

The integration and use of ICT in health and care is an immediate challenge for the particular sector of maritime fishing, where remote health care is essential. These technologies help to share knowledge in a way that it reaches more people, being an important element for listening, promoting good practices and facilitating communication and transparency in the field of health.

13- Advantages and opportunities of health surveillance ine the Maritime Port Field

by D. Jose Ignacio Olaizola Nogales. Deputy Director of Planning at OSALAN

Monitoring should identify adverse effects of work on the worker's social, physical and mental well-being as early as possible, so as to prevent progression to greater harm. The word surveillance applies to both individuals and communities and is aimed at the prevention of occupational risks, the identification of health problems and the evaluation of preventive interventions. Monitoring must be carried out continuously. Medical examinations must be integrated into plans and programs for the prevention and improvement of working conditions.

Article 14 of the law on the prevention of occupational risks includes the right of workers to protection against occupational risks, indicating that they are entitled to effective protection in terms of health and safety at work. To do this, the prevention services must be able to provide the company with the advice and support it needs according to the types of risks present and in relation to the design, implementation and application of a occupational risk prevention plan, assessment of risk factors that may affect the safety and health of workers, planning of preventive activity as well as control of measures, information and training of workers, monitoring of workers' health in relation to work-related risks.

Prevention services are linked to occupational medicine, occupational safety, industrial hygiene, ergonomics and applied psycho-sociology. Reducing the health activity of preventive services to health examinations in the absence of control and risk reduction programs is inappropriate. This is why coordination between technical disciplines and occupational medicine is absolutely necessary. This involves the development of health assessment (initial, periodic, after absence for health reasons or subject to protocols related to specific risk factors), knowledge by health personnel of the diseases that occur in workers with the aim of identifying any relationship between the cause of the disease and health risks in the workplace, analysis of the results of health surveillance with epidemiological criteria, assessment of risks affecting workers in situations of pregnancy and recent childbirth and minors, the provision of first aid and emergency care, the promotion of health in the workplace, the development of training, information and research programs .

Health monitoring has two complementary components: individual and collective.

Individual follow-up: detection of work-related injuries and associated risk factors, evaluation

of preventive measures and proposal of new measures if necessary.

Collective monitoring: frequency, severity and trend of risks, study of cause and effect hypotheses between risks and health problems, evaluation of the effectiveness of measures.

In the maritime sector, workers, before boarding, must have a certificate of aptitude, the purpose of which is to guarantee that the person's psychophysical conditions are compatible with the planned job and do not present a danger to their health and safety, as well as for the crew and the vessel.

ENVIRONMENT AND CLIMATE CHANGE

14- The challenge of reducing greenhouse gas emissions in maritime transport

by Dna. Elena Seco Garcia-Valdecasas. General Director of the Association of Spanish Shipowners

Maritime transport is essential to the global economy. According to Clarksons, it accounts for around 90% of international trade. In Spain, it is also essential for the daily supply of non-peninsular Spanish territories. Without regular maritime services, the Balearic Islands, the Canary Islands, Ceuta and Melilla would be without supplies in a few days. During the pandemic, its strategic nature was recognized through an amendment to the consolidated text of the law on ports and merchant shipping.

Apart from its efficiency and low cost, another important feature of shipping is that it is a global business, with ships of all flags and businesses of all nationalities. This is made possible by international regulations, covering all aspects of the design, construction and operation of ships, as well as the training of crews, work on board and respect for the environment.

The maritime mode is also distinguished by its efficiency in the use of energy: to move 90% of international trade in goods, it requires only 11% of the total energy consumption used in transport and is not responsible than 2.5% of total global greenhouse gas (GHG) emissions of anthropological origin.

But currently, this is achieved mainly through the use of fossil fuels. In 2020, the fuel consumption of the world fleet was for 94.0% of petroleum products and for 5.9% of liquefied natural gas, therefore almost 100% of fuels of fossil origin. As a result, although maritime mode emissions are very low per tonne x km, given the huge volume of goods transported they represent higher absolute CO2 emissions than Germany, only 5 countries (China, United States States, India, Russia and Japan) emitting more CO2 than shipping.

1. International regulation of GHG emissions from shipping

GHG emissions from shipping are regulated internationally by Chapter IV of Annex VI of the International Convention for the Prevention of Pollution from Ships (MARPOL Convention). The first standards were adopted in July 2011 and came into force in January 2013, making shipping the first industry sector to have binding global regulations aimed at reducing GHG emissions.

These measures, amended regularly, include the Energy Efficiency Design Index (EEDI), minimum level of energy efficiency (tonne x mile), according to each type and size of vessels. The new amendments adopted at MSC 76 will apply from 1 January 2023:

- An Energy Efficiency eXisting ship Index (EEXI)
- An Operational Carbon Intensity Indicator (CII).

Since EEDI has only applied to new ships since 2013, around 75% of the world's merchant fleet, corresponding to 60% in GT, does not meet its requirements. The objective of the EEXI is to establish a minimum energy efficiency requirement for the entire world merchant fleet. Existing vessels not meeting the required EEXI will need to improve their efficiency by limiting engine power, installing energy saving devices or any other verifiable measure. The rule provides that this limitation can be bypassed for safety reasons, in particular in the following cases: adverse weather conditions, navigation in ice, SAR operations, pirate attacks, engine maintenance.

While the EEXI is a characteristic of the ship, obtained and certified only once, the CII refers

to the actual emissions produced during the operation of the ship during a given year. In addition, the required CII will be reinforced year after year, so that in its first year of application (2023), ships will have to reduce their carbon intensity by at least 3% compared to 2019, then by 2% year between 2023 and the end of 2026. So by the end of 2026, the world fleet should have reduced its carbon intensity by 11% compared to 2019. The CII obtained will make it possible to classify ships according to their emissions (A, B, C, D or E), classification that will be recorded in the Ship Energy Efficiency Management Plan (SEEMP). And a ship rated D or E for three consecutive years will have to submit a corrective action plan allowing it to achieve the required rating (minimum C), a ship being able to reduce its carbon intensity by a combination of measures: speed reduction, optimization of operations and logistics, implementation of energy efficiency technologies, use of alternative fuels.

The IMO has recommended that States set up incentives for those who obtain an A or B classification (reduced postage type).

2. IMO roadmap towards the decarbonisation of maritime transport

Emission reduction targets agreed by the IMO in 2018 include:

• Reduction of specific (per t x mile) GHG emissions from international shipping by at least 40% by 2030, aiming to reach 70% by 2050, compared to 2008.

• Canceling absolute GHG emissions from maritime transport as soon as possible and reducing them by at least 50% by 2050 compared to 2008.

With current growth forecasts for global maritime trade, to achieve a 50% reduction in absolute CO2 emissions by 2050, global fleet carbon emissions per t x mile would need to be reduced by 90%, i.e. that is to say that a large part of the fleet uses fuels with no emissions at this date. But currently there is no viable zero-emissions fuel or technology available for shipping, and it would take a huge amount of renewable energy to generate all of these "green" fuels, as well as new infrastructure for manufacturing, supply and handling of these new fuels, as well as dedicated training programs and safety procedures.

3. The EU "Fit for 55" package

On 14 July 2021, the European Commission (EC) presented the 'Fit for 55' legislative package, the objective of which is to reduce the European Union's total GHG emissions by 55% by 2030 compared to 1990 levels. This will have an impact on the maritime transport sector through the amendment of Directive 2003/87/EC including maritime transport, the regulation on the use of renewable fuels and low-emission fuels carbon emissions in maritime transport, the directive on energy taxation.

3.1. Fuel EU Maritime Regulations

The objective of the Fuel EU Maritime proposal is to promote the use of more sustainable alternative fuels, by establishing a penalty based on the carbon intensity of the fuel used. The carbon intensity of the fuel used is calculated taking into account the emissions linked to its extraction, production and transport.

Some kings of vessels should be connected to the shore power grid (passenger ships and container ships) or use other "zero emission" technologies while in port. Initially, carbon-free fuels or LNG would not be subject to penalties, and shipowners could even generate a "positive balance" of CO2 with all or part of their fleet to offset the negative of other ships, thus seeing their reduced penalty. However:

1. In IMO conventions, in general, the person responsible for compliance with the established obligations is the shipowner. But as shipowners are not necessarily responsible for the choice of fuel and the operation of the vessel, it will be essential to establish a mechanism for transferring the cost of emissions to the time charterer, who is the one who decides on the fuel supplied, route and speed, all decisions affecting consumption and therefore emissions.

2. Shipowners must certify the carbon content of marine fuels covered by this Regulation, including those acquired outside the EU. But, without an internationally recognized certificate approved by the IMO, it will be very difficult for shipowners to justify the advantages of an eco-fuel supplied outside the EU.

3. Possible mixtures may cause compatibility issues.

3.2. European Emissions Trading System (EU-ETS)

The Commission has proposed to include maritime transport in the EU-ETS from 2023. This system imposes an "emission cap", i.e. the tonnage limit that the sector can emit as a whole; companies having to buy emission rights (quota), equivalent to one tonne of CO2, with the possibility of trading, buying or reselling them as needed.

At the end of each financial year, companies must have acquired sufficient rights to offset their tonnes of CO2 emitted. The Commission then adapted the mechanism by reducing the emission rights available, thus increasing their price and thus promoting decarbonisation. The price of CO2 emission rights on the EU spot market recorded, on 8 February 2022, a historic record of €96.38/t of CO2, i.e. almost four times the 2020 average (25.09 €/t) and double that of 2021 (53.68 €/t). The economic impact of this measure, with a carbon price of €100/t, is estimated at approximately €10,500 million per year, or an average of €850,000/vessel. The proposal makes the owner responsible for fulfilling the obligations. As for the EU Fuel Regulation, in accordance with the Community principle of "polluter pays", the entity responsible for the choice of fuel and the operation of the vessel should bear the cost of the measure.

3.3. Directive on the taxation of energy products and electricity.

This directive establishes mandatory minimum levels of taxation of energy products and electricity, applicable from 1 January 2004. It allows Member States to apply total or partial exemptions to certain products and/or sectors, including so far finds shipping. The Commission proposes to eliminate the possibility of exempting intra-Community maritime transport, which would be subject to minimum levels of taxation lower than those applicable to the general use of fuels. For Spain, this directive does not apply to the Canary Islands, to Ceuta and Melilla, outside the customs territory of the Union.

4. Transition fuels.

Shipping needs to reduce its carbon footprint, but neither the fuels nor the technologies to decarbonise shipping exist. The ships, an investment of several million dollars, have an average lifespan of 28 years and will not disappear when an alternative to fossil fuels exists. Some ships, current or built in the coming years, will still be operational in 2050. In this context, it would be necessary either to use transition fuels to start reducing emissions, or to delay investments until there is greater certainty about the options available. But delaying investment will slow down the process of reducing emissions from the maritime sector.

4.1. Eco-fuels.

Eco-fuels (biofuels produced from biological waste without releasing CO2 into the atmosphere or synthetic fuels produced from captured CO2 and renewable H2) would make it possible to immediately begin reducing the carbon footprint between 60 and 100%. But it would be necessary to transform the refineries by securing the investments of the operators of petroleum products.

4.2. LNG (Liquefied Natural Gas)

LNG makes it possible to reduce GHG emissions, theoretically around 25%, even if the net effect, following the losses of methane in the atmosphere, would be between 9 and 20% depending on the engine. The necessary technology has been available and tested for many years on LNG carriers and a global supply infrastructure is developed and growing. In the future, it will be possible to replace fossil-based LNG with biogas or syngas, reducing or even eliminating the carbon footprint.

5. Fuels and technologies of the future

5.1. Hydrogen, H2

The energy density of H2 at ambient temperature being very low, it must be liquefied (-253°C at atmospheric pressure). It is also highly flammable and requires nearly five times the space of conventional fuels for storage. It will require the development of a new supply infrastructure. Moreover, even if "green" hydrogen will play a fundamental role in the manufacture of the fuels of the future, hydrogen is not found in a free state on the planet. The first challenge is therefore to develop systems capable of producing it efficiently.

5.2. Ammonia, NH3

One of the biggest advantages of ammonia is that it could be used in internal combustion engines similar to today's engines. MAN Energy Solutions expects that in 2024 its first ammonia-powered engine will be available for sale. But its high toxicity will require the implementation of rigorous safety procedures and training. Ammonia has very slow flame spread, making it more difficult to sustain combustion, which generates nitrogen oxides that can be removed by catalytic reduction systems, as well as nitrous oxide emissions (N2O), a strong greenhouse gas with an impact 283 times greater than CO2.

The energy density of ammonia is also relatively low, which would require ships to double the storage space on board. To be used as fuel, it should be stored in a liquid state (-35°C).

According to the British Royal Society, to produce the "green" ammonia necessary to use the entire world fleet, it would take energy equivalent to 30% of the world's current renewable energy production capacity.

5.3. Methanol, CH3OH

Methanol is a stable and safe hydrogen carrier, it is the simplest alcohol with the lowest carbon content and the highest hydrogen content, it can be stored in liquid state at room temperature and pressure. Methanol is not extracted, it is manufactured and if the manufacturing process uses renewable energy and captures carbon, the methanol produced is "green".

But it is still a hydrocarbon and when burned in a diesel engine it produces almost as much CO2 as fuel oil (VLSFO).

As with ammonia, its high toxicity and relatively low energy density are of concern and there is no supply infrastructure in the world.

5.4. Fuel cells

Hydrogen can also be used in fuel cells, which produce electricity through an electrochemical reaction. This system is considered to be a promising possibility, both for propulsion on short journeys and for the auxiliaries of larger ships.

15- Maritime accidents, new technologies and their impact on the environment

by D. Jose Manuel Martin Osante. Professor of Law Mercantile of the University Basque Country

1. Maritime accidents and new technologies

With the application of new technologies to transport, it is a question of achieving objectives such as increasing their safety, efficiency and sustainability, but without forgetting the reduction of costs, the improvement of services and transport infrastructure, environmental protection, territorial cohesion and connectivity.

But the technology may have flaws or anomalies. For a defect not discovered by the shipowner, the latter will not be at fault and no liability should be imputed to him. However, it is possible for the injured party to claim directly from the manufacturer, importer or supplier of the product for the damage suffered. Similarly, a shipowner who had to compensate for damage resulting from a collision caused by a defective product (through no fault of the shipowner), may claim payment from the manufacturer, importer or supplier of the product. It is therefore appropriate for manufacturers, importers or suppliers of equipment for ships, or for land-based

centers for maritime traffic control and communications, to take out commercial liability insurance with coverage for civil liability products.

2. Approach to liability for the collision in Spain

Doctrine and case law affirm that liability for damage due to collision, according to the Commercial Code, revised by the 1910 Convention and by foreign regulations, is of a non-contractual nature. The same statement must be made for the regulation of collision provided for in Law 14/2014, of July 24, on Maritime Navigation (hereinafter, MNL); it is therefore clear that culpable collisions which only constitute an infringement of the rule not to cause harm to others (alterum non laedere), are subject to the regulations governing collisions, since they include a system of liability tort.

Similarly, the international Conventions relating to the various types of contracts used in the field of maritime traffic include in their text provisions aimed at guaranteeing the applicability of the contractual liability regime in each of these Conventions, even when the injured parties file a complaint (articles 4.bis1 Hague-Visby Rules, 7.1 Hamburg Rules, 20.1 Multimodal Transport Convention and 14 Athens Convention). This is why the MNL provides in its art. 345.2 that the rules of the chapter on collision adapt to the provisions of international regulations

Similarly, the MNL, in its article 345.1, provides that "1. The rules of this chapter apply in any case to liability for damage resulting from a collision, whether this liability is required in the context of civil or criminal judicial proceedings, or administrative proceedings".

The shipowner is directly liable for third parties injured by the collision. However, this does not prevent the shipowner, after payment of the corresponding compensation, from taking action for recovery against the material cause of the collision.

3. Basis of Liability.

Under the MLN, the liability regime instituted by our Commercial Code is abolished. Liability for presumed fault of vessels involved in a collision changes to liability for proven fault. It is up to the defendants to provide proof, aimed at proving the fault of another vessel, of force majeure to exonerate themselves from their liability. With this system, injured parties have found effective protection, since they are freed from the burden of proof.

4. Liability requirements

4.1. Fault

According to the MLN (art. 340.2), for the shipowner to be required to compensate persons injured by a collision, this accident must have originated from a fault or an omission. If the cause of the accident is not the fault, but the fortuitous event or its causes are simply unknown, the owner will not be liable for any resulting damage.

All boats must have the means to navigate safely. To this end, the maritime legislation establishes a series of obligations aimed at guaranteeing their adequate maintenance in order to be able to carry out the necessary maneuvers to avoid a collision, correctly indicate their position or the maneuver that they are going to carry out, non-compliance being able to generate a guilty move.

4.1.1. The fault of navigation

It normally results from the violation of the legal or regulatory provisions aimed at guaranteeing safety in the exercise of navigation, the International Regulations for Preventing Collisions of October 20, 1972. These regulations establish, from a technical point of view, the various precautions to be taken to deal with situations that may arise during navigation, thus avoiding collisions. Its content generally leads to the identification of the violation of the Regulations at the origin of the collision. But there are in addition special rules, of local scope, established by the governments of the States (warships, in convoy or fishing in flotilla), which also apply in preference to those contained in the Regulations.

The doctrine itself qualifies this tendency to identify the fault at the origin of the collision with an infringement of this regulation, by specifying that it is not even necessary to infringe a specific regulatory standard, but that it is would suffice to contravene what, according to good maritime practice, should have been done, to incur culpability, whether or not such conduct was expressly provided for by the regulations governing maritime navigation.

Hence the inclusion of general clauses such as that contained in Rule 2 (a) of the 1972 Regulations, according to which account must be taken of any precautions which may be required by the normal practice of the seafarer in addition to what is established by regulation.

Similarly, Rule 2(b) permits ships which find themselves in a nautical situation of imminent danger to disregard the Ordinary Rules, if they can thereby overcome the situation.

4.1.2. The fault in the maintenance of the ship

The origin of the collision may lie in the defective condition of the ship or one of its equipment, devices, technical means, in which case the shipowner will be liable, arising from his negligence in the maintenance of the ship. When the collision is caused by the malfunction of any of the elements or devices of the ship, the shipowner must demonstrate that this defect was hidden.

4.2. The dependency relationship

The MNL assigns the responsibility for damages derived from the collision to the owner of the vessel. And therefore what link must exist between the person responsible for the fault and the owner, so that the latter is required to compensate the injured third parties.

The relation of dependence must be understood in the sense of legal dependence, that is to say as the subordination of certain persons to the management power and the disciplinary power of the shipowner, therefore dependents of the shipowner, such as members of the crew bound to the shipowner by an employment contract, persons who, without being part of the crew, perform their duties on board and in the service of the ship, by virtue of an employment contract in which the shipowner has reserved the management or supervision of the execution of the works, all other persons subject to the management and disciplinary powers of the shipowner, even if they carry out their duties ashore, as well as the passengers who perform duties in the service of the ship, under the direction of the captain, another member of the crew or the owner himself.

4.3. The performance of duties

Bearing in mind that the owner is responsible towards the persons injured by the collision, when the said accident was caused by the fault of his crew, the question which then arises is to specify what type of culpable conduct of the person to load is at the origin of this responsibility of the shipowner. For the liability of the shipowner to be engaged, the harmful act of the rightful claimants must be committed in the exercise or on the occasion of the exercise of the functions of the services which were devolved to them.

5. Collision and faulty equipment

The purpose of product civil liability cover is the civil liability that the insured may incur as a result of damage caused by the products or goods after delivery, for work carried out or services provided after receipt. In this respect, it should be noted how defective equipment incorporated into the ship can be the cause of a maritime accident and generate the responsibility of the builder for the damage caused.

The General Law for the Defense of Consumers and Users does not require that the goods be intended for private use or consumption, that is to say outside the commercial or professional activity, so that both both consumer and production goods (technical equipment, computers, spare parts or lubricants, etc.) are covered by the policy.

Article 137 of the General Law provides for a legal notion of defective product in the following terms: “1. Circumstances and, in particular, of its presentation, its reasonably foreseeable use and the moment of putting into circulation. 2. In any case, a product is defective if it does not offer the security normally offered by other copies of the same series”.

Similarly, the notion of defect is unique; there is no distinction between manufacturing, design and information defects. The insured of the contract with product civil liability guarantee may be any person liable for damage caused by defective products (producers, manufacturers or importers of a finished product or components or a raw material.

Another potential but subsidiary responsible, in case of non identification of the producer or supplier, of the defective product is its supplier (seller or distributor). Similarly, potential managers include service providers and those responsible for carrying out the work.

6. New technologies and the environment

Vessels integrate sophisticated and high-tech technical equipment that facilitates e-Navigation. This technology increases the safety conditions of maritime navigation, which should lead to a reduction in maritime accidents and, consequently, a decrease in maritime pollution derived from these accidents. In all cases, this equipment must be properly maintained by the shipowner or the subcontracted maintenance service.

However, human error cannot be overlooked. Indeed, major technological advances in ships are improving levels of safety, but they will not prevent maritime accidents and marine pollution from occurring, with accidents generally stemming from human error. But the technology will be managed by humans. Admittedly, the room for action and decision-making will be gradually reduced in favor of automated processes, but without the human decision, and therefore the possible failure of people, disappearing. Consequently, the increase in technological advances and the development of electronic navigation reduce certain risks, but, indirectly, generate new ones, such as those related to cybersecurity or the possibility that technology fails. It is worrying to see how cyberattacks on the maritime sector have increased in recent years, with the possibility of malicious access to technological devices on board.

One of the main objectives, with the digitization of transport, is environmental sustainability, and more specifically, the integration and development of new technologies that contribute to the reduction of noise, greenhouse gas emissions, and other polluting particles. Likewise, it will be possible to gradually introduce more efficient and dynamic routes, therefore less polluting ships as well as automated processes for port handling, storage, logistics, thanks to robotics and artificial intelligence.

16- Impact of the «Fit to 55» on Logistics and Transports

by Dna. Iratxe Garcia Gill. Director of Organization and Corporate Development Basque

Institute of Logistics and Suitainable Mobility

Transport must reduce its emissions by 90% by 2050.

Percentage of total GHG emissions in the EU, by mode of transport:

road air maritime

European Green Deal – for 2050

Key dates:

December 2019: Commission presents European Green Deal, committing to climate neutrality by 2050

March 2020: Commission proposes European Climate Law to write 2050 climate neutrality target into binding legislation

September 2020: Commission proposes new EU target to reduce net emissions by at least 55% by 2030, and add it to the European Climate Law
December 2020: European leaders endorse Commission's proposed target to reduce net emissions by at least 55% by 2030
April 2021: Political agreement reached on European Climate Law by European Parliament and Member States
June 2021: European Climate Law enters into force
July 2021: Commission presents package of proposals to transform our economy, to reach our 2030 climate targets. European Parliament and Member States to negotiate and adopt package of legislation on reaching our 2030 climate targets
September 2021: New European Bauhaus: new actions and funding
2030: EU to deliver a reduction of emissions of at least 55% compared to 1990 levels
2050: EU to become climate neutral

The EU will reduce its net greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels, as agreed in the EU Climate Law. On July 14, 2021, the Commission presented proposals to achieve these objectives and make the European Green Deal a reality

EU Emissions Trading System (ETS): putting a price on carbon emissions

Truck transport:

The ETS is extended to fuels for road transport from 2026, a particular focus is placed on fuel suppliers (rather than households and motorists) and revenues are channeled towards helping vulnerable households and investments.

Air Transport:

A stricter limit is set for the number of emission rights inside the EU, from current levels and with a planned reduction of 4.2% per year. Flights outside Europe are subject to compensation under the CORSIA International Plan.

Maritime transport:

The ETS is gradually extended to the maritime sector from 2023 over three years, more particularly on large ships (over 5,000 gross tonnage), which represent 90% of CO2 emissions; the regime applies to traffic inside the EU and 50% of crossings outside the EU.

Regulation of effort sharing

Diffuse sectors must contribute to the European Union's overall emissions reduction target with a reduction of 30% on average, 26% for Spain, compared to 2005 levels. In July 2021, the Commission published a proposal for a directive on renewable energy sources with a target of a 2.2% share of advanced biofuels and biogas by 2030 and an intermediate target of 0.5% by 2025.

In its effort to decarbonise and diversify the transport sector, it is implementing:

- An objective of reducing the GHG intensity of fuels used for transport by 13% by 2030, covering all modes of transport;
- A 2.2% share of advanced biofuels and biogas by 2030, with an intermediate target of 0.5% by 2025;
- A target of 2.6% renewable energy of non-biological origin and a 50% share of renewable energy in industry's hydrogen consumption, including non-energy uses, by 2030.

The principle of energy efficiency implies adopting a holistic approach that takes into account the overall efficiency of the integrated energy system and promotes more efficient solutions for climate neutrality throughout the value chain (from the production of energy, from transport to final consumption)

Energy Tax Directive

• Fuels will start to be taxed according to their energy content and environmental behavior instead of their volume.

• The classification of energy products for tax purposes is simplified to ensure that the most environmentally harmful fuels are taxed the most.

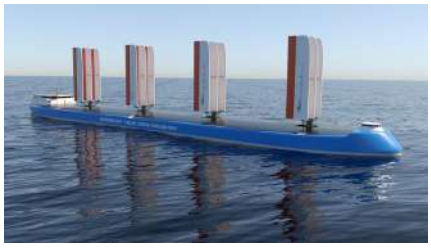
• The phasing out of exemptions for certain products and domestic heating will prevent fossil fuels from being taxed below minimum rates.

Fossil fuels used in air and maritime transport within the EU should no longer be exempt from EU energy taxation.

Carbon Border Adjustment Mechanism (CBAM)

The objective pursued by the implementation of this carbon border adjustment mechanism is twofold: on the one hand, to protect the environment by reducing CO2 emissions (both inside and outside the EU) and, on the other hand, to mitigate the problems of "carbon leakage" derived from the EU emissions trading system, while preserving the competitiveness of European companies. The withdrawal of emission rights is complemented by the proposal for a border carbon tax on imports.

Trends in the Maritime


<u>17- The importance of marine areas for our oceans</u>

by Dna. Atma Gomez. Oceanographer

The importance of marine areas for our cetaceans.

During the time of Juan Sebastian Elkano, there were notable changes in the economic and political-social context of the Basque coast, changes often directly related to maritime activities, shipbuilding, fishing and whaling.

In the field of marine biodiversity, up to 17 species of cetaceans have been identified on our coasts. In fact, the glacial right whale (Eubalaena glacialis) was even called the "Basque whale", since it was one of the favorite pieces of Basque whalers. This one has not been seen in this part of the Atlantic for more than a century, it is considered extinct in our seas. It is found only on the North American coasts and for a number not exceeding 400 individuals. The right whale is among the most endangered animals on the planet, according to data from the International Union for Conservation of Nature, which has listed it on its red list as critically endangered. Since the 80s of the last century, its hunting, whether commercial or traditional, has been prohibited.

What is a cetacean?

Cetaceans, a word coined by Aristotle, are eutherian mammals, that is to say they are placental, the young developing in the uterus and being nourished by a placenta, like almost all mammals. The word cetacean means whale or sea monster, to designate aquatic animals endowed with pulmonary respiration. They have a hydrodynamic body, similar to that of fish and perfectly adapted to life at sea, even in rivers. Evolution has transformed their front legs into flippers and the hind legs have all but disappeared, giving way to a caudal fin at the end of the tail, made up of two horizontally arranged lobes that help them swim towards the surface. On the top of their head they have one or two spiracles (nostrils) through which they can breathe on the surface of the water.

There are three suborders of cetaceans, one of them with already extinct species (Archaeocetes). The other two are divided into baleen whales (mysticetes), or commonly called whales, and toothed whales (odontocetes).

Baleen whales are the largest animals that have ever existed in the world. More, even, than the dinosaurs. The group is made up of fin whales and whales divided into 4 families and 15 species. They are toothless carnivores that have, instead of teeth, keratin barbs on the upper jaw that filter the water that comes out of their mouths, trapping the living organisms they feed on (mainly krill, small fish or crustaceans). They have a thick layer of fat that insulates them from cold water temperatures, and their lungs are adapted to get 80% of the oxygen from the air (20% in humans) while withstanding pressure, giving them the ability to dive to great depths.

Odontoceti, or toothed whales, have a single spiracle for breathing and a domed forehead below an organ used for echolocation. This organ, made up of lipids, functions as a kind of cushion helping to perceive sounds in water. They are made up of 8 families, dolphins (including killer whales and pilot whales), river dolphins, porpoises, vaquitas, sperm whales, beaked whales, belugas and narwhals. Unlike baleen whales, odontocetes can vary greatly in size and, in most cases, have a dorsal fin.

Why are cetaceans crucial to our seas?

The role of cetaceans in the proper functioning of the marine ecosystem is indisputable. Their excrement, rich in iron, nitrogen and other nutrients, acts as a fertilizer, increasing the productivity of small algae called phytoplankton, the main food of krill and small crustaceans, which in turn support the life of hundreds of species of fish, seabirds and mammals, including whales.

In addition, the amount of iron contained in whale feces can be up to 10 million times greater than the level of iron in the marine environment, triggering significant phytoplankton blooms, which in turn sequester thousands of tons of carbon from the atmosphere.

Status of cetaceans

Many international measures protect cetaceans, hunting bans and conservation efforts have moved some species, such as the humpback whale, from “vulnerable” status to “least concern” on the IUCN list. However, small coastal and river cetaceans were not so lucky, some, like the vaquita marina, are in imminent danger of extinction. The causes of the decline are diverse: collisions with boats, fishing nets, deterioration of their habitats, reduction of food sources and noise pollution.

On the Basque coast, there is an alarming lack of data concerning the conservation status of the cetaceans that inhabit our waters; studies are relatively recent and very rare in certain areas of the European Atlantic. The Basque Autonomous Community, like other communities, is required to comply with European regulations regarding the conservation of its habitats and species. Annex II of the Habitat Directive (92/43/EEC) contains about fifteen species of cetaceans, between different dolphins, porpoises, sperm whales and whales.

The wealth of biodiversity in terms of cetaceans on our coast is due to its geomorphology, a narrow continental shelf, the confluence of the Cantabrian and Armorican slopes and the canyon of Cape Breton. This submarine canyon gives rise to an exceptional environment very favorable to the spawning of small pelagics, which explains the presence of their predators, such as cetaceans, seabirds and tunas.

Need for marine reserves

The need to create marine protected areas is highlighted to ensure the protection of cetaceans. The oceans generate 50% of the oxygen we breathe, but only 7% is declared a protected area. Global fishing is in crisis as after World War II there was no doubt that fishing would feed humanity.

The most effective solutions to this crisis have proven to be, without a doubt, marine reserves. These manage to protect the critical spawning biomass, increase intraspecific genetic diversity, balance the ecosystem, contribute to the maintenance of fisheries, solidify the age structure of the population and above all maintain biodiversity.

Studies show that between 20 and 40% of the world’s oceans should be protected to maximize the benefits of fishing. This should be put in place urgently, to protect the key species of the food system, cetaceans. Creating marine sanctuaries helps protect the habitats where cetaceans feed

breed and have their young, and in these sanctuaries fishing should not be allowed at all. Indeed, reserves of this type, which are very restrictive, have shown that the recovery of the ecosystem has been much faster than expected.

(to be continued)

Capt. Hubert Ardillon
CESMA Secretary General

FROM THE EDITOR

1. Masters

The Captain of the Bulk OS 35 Has Been Arrested
Published Sep 2, 2022 by **Juan Zamora Terres**

The situation is still confusing, but all the Spanish media have been launched in a rush to announce that the captain of the bulk carrier OS 35 has been arrested by the Gibraltar police.

The OS 35 is a ship built in 1999, with a dead weight of 35,362 tons, a length of 178 meters and a beam of 28 meters, registered in Tuvalu, a tiny Polynesian territory with just over 11,000 inhabitants, which seems to have been created by Great Britain. on purpose to have another flag of convenience.

The OS 35 collided last Monday, August 29, with the gas carrier ADAM LNG, registered in the Marshall Islands, built in 2014 with a length of 289 meters and a beam of 45.6 meters. The collision occurred in the vicinity of the Rock for reasons that are difficult to understand, since the weather was good and visibility was good. Some reports have attributed responsibility for the accident to the DAM LNG gas tanker; although the causes will not be known until the ongoing technical investigation is completed. As a result of the accident, the bow bulb of the gas carrier had a large dent, without major importance for the safety of the ship, but the bulk carrier suffered a breach of about 10 meters in length on the starboard side. The Gibraltar authorities took the bulk carrier to Catalan Bay (Catalan Bay), where they beached it on the sand of the seabed.

Shoot before asking

While the accident did not cause the alarm due to pollution of the sea, the crew of OS 35 remained on board until they disembarked last Wednesday, since the ship was stranded and without risk of sinking. But on Wednesday, two days after the accident, the starboard crack caused the breakage of the bulk carrier and the first spill of the ship's fuel and consumer oils. And the authorities got nervous. And the next day the nervous, ignorant about ships and maritime accidents, decided to arrest, or call to testify before the judicial police of the Rock, the captain of OS 35. The alleged reason for arresting or retaining the captain is the usual one, the employee to arrest the captain of the PRESTIGE (he disobeyed the orders of the authorities), accompanied by another even more surreal reason: not collaborating with the authorities.

In short, the unfortunate, damned story of always: arresting the captain of the accident ship

to present him to society as the person responsible for the ecological misfortune, magnified to the maximum by the toxic declarations of the so-called environmentalists who feed on inflating any hint of damage environment, real or supposed. Faced with the alarmist tide, the authorities use their poor judgment and great fear to invent an excuse that allows them to arrest the ship's captain. Ecce homo , here is the culprit, the evil polluter.

What crime could the captain of OS 35 really have committed? None. Any. Perhaps the watch officer at the time of the collision made a mistake in judgment, or was distracted; or perhaps not even that, and most of the technical responsibility for the collision fell on the gas carrier, which remains anchored in the Bay of Algeciras. In any case, if the hypothetical error in navigation were to have any criminal consequence, a remote possibility, but one that cannot be ruled out, such a declaration would have to emerge from a court after the subsequent investigation. And even in that case, the arrest of a member of the ship's crew would not be justified. The arrest of the captains after a maritime accident, I speak as a professional sailor, is simply a scoundrel.

The justifications for the measure, that disobedience or that lack of collaboration, are inventions to get out of trouble, a falsehood. Nobody familiar with the maritime world can believe that the Gibraltarian authorities ordered the captain of the OS 35 to anchor and he refused. And the alleged lack of collaboration is absurd, stupid for others. After the accident, the owner of the damaged ship contracted the services of the famous Smit Salvage, who came promptly to inspect the ship and present a salvage plan. The person in charge of Smit Salvage at the head of the salvage team deployed to Gibraltar has all the authority of the ship's captain. He has not collaborated with the authorities?

Have no doubt. When a sailor is detained for "disobeying" or "not collaborating" we find ourselves before mediocre authorities, with a lot of ignorance and few scruples, capable of detaining her mother in order to divert the focus on her actions. And the captains are the weak link, the easy target. The ecce homo.

Ship Master Carries the Can

Published Sep 20, 2022 by **Seatrade Maritime**

The surgeon who has employed the scalpel inappropriately, the truck driver who has let his mind wander, the ship master who has run a vessel aground or collided, will today face more than the sack. The law will demand its pound of flesh and it is perhaps difficult to think of why this should not be the case.

But there are some events where the threads of responsibility are so ridiculously tenuous that the law itself loses all respect, and in our maritime world the use of criminal sanctions seem often to have become completely promiscuous and bereft of any common sense. Just the other day we read of the suspended gaol sentence and $28,000 fines imposed by a court upon the Master and crew members, following an explosion in a container which had just been loaded aboard a feeder containership in the port of Jebel Ali.

Related: Five given suspended prison terms for 2021 Jebel Ali Port blast

The box, containing chemicals prone to overheating, had been stored on the quayside for nearly two weeks in the summer sun and there was just no way that the ship's crew could have known this as the stevedores loaded it. To be fair, the authorities charged and ultimately fined others whose responsibility might have been clearer, but this was just one of the more egregious cases of the way that the innocent are being targeted by exceedingly blunt justice.

In a pre-container age, the master and mate really had the responsibility for the safe stowage

of the cargo and were able to exercise their authority to the best of their professional judgement. As containerisation gathered pace, it became perfectly obvious that this could no longer be the case with the cargo planning and the authority surrounding it removed from the ship. But the responsibility has remained with the master, who will still face the music when something, over which he or she has no conceivable control, goes badly wrong.

Related: Master of APL England charged in Australian court

And when it does, the P&I club will smoothly ensure that any bond is paid and the ship released to carry on trading, even though the master will remain, often for months on end, to face the charges which have been laid. It is not difficult to recall case after case where professionals have been held, almost like hostages, as the legal processes grind on and the injustice becomes compounded by time.

It might be said that the master, could be judged responsible for everything that went on aboard the ship, because traditionally this has been the case. But this surely has become completely outdated, at a time where the master has become almost a cipher, acting at the behest of owner or charterer. And as the industry becomes increasingly digitised, there will an increasing operational responsibility passing to the management ashore. We can already see this happening with operational management centres ashore, acting on data transmitted automatically from the ship to direct and control a growing range of technical matters, once the preserve of those aboard.

Who is the real authority, when a ship, whose course, speed, direction and conduct has been prescribed (not just advised) by shore control, after the storm turned out rather worse than had been anticipated and there has been a heavy loss of boxes over the side? Currently we are also seeing voyages of autonomous and semi-autonomous ships, perhaps on a trial basis, but an indication of where the future is heading. Somebody other than those aboard such a ship are taking the authority – will they too assume all liabilities and responsibility under law?

It is just too easy to trot out some untested formula about the supposed responsibilities of manufacturers of this clever equipment. In short, the world has changed, and it is time society's perception of the liabilities and responsibilities of senior ships' officers is given a commensurate update.

2. Crew

The State of Human Rights Implementation in Shipping
Published Oct 21, 2022 by **Human Rights at Sea**

Human Rights at Sea has published a new independent review into implementing the UN Guiding Principles on Business and Human Rights throughout the maritime sector.

The extensive report provides both an introduction to the UN Guiding Principles (UNGP) and highlights ongoing developments in the maritime sector under the three UNGP pillars.

It points to areas within maritime sectors where further work is needed to ensure that commercial engagement fully aligns with the Guiding Principles.

The UNGP have now been in place for over a decade. Still, the degree and quality of their implementation across global supply chains requires significantly more investment and development to demonstrate lasting impact. This is especially so throughout the maritime sector.

As stated by Phil Bloomer, Executive Director of the Business and Human Rights Resource Centre, in the foreword:

"Framing the concerns at sea raised by civil society organisations involves switching the

industry's approach from a race to the bottom, to a race from the bottom. This requires transparent and accountable reporting and continuous communication, especially from leading companies who are attempting to move in the right direction in what should be otherwise seen as a race to the top."

The UNGP are here to stay, and they are changing business practices, though still not quickly enough. It is even more so the case when we consider the fast-moving developments in mandatory human rights due diligence legislation being enacted in a growing number of countries.

Previous Human Rights at Sea reporting has highlighted that some related business activities are being implemented in the sector, including the introduction of tools, public reviews and evidence-gathering mechanisms. Unfortunately, many such activities are still conducted behind the corporate veil with limited disclosure and even more limited accountability.

This is despite increasing consumer interest and civil society pressure for business actors to become more transparent, openly accountable and to actively show integrated use of the UNGP within their business models.

It is now up to all maritime sector stakeholders, including those related to merchant shipping, passenger transport, offshore oil and gas and fishing, to apply the available tools, learn from peers who are further ahead and come together at industry-level with all stakeholders to achieve widespread change.

3. Safety

Calls for Action Ater Lifeboat Abandoned During Training
Published Sep 23, 2022 by **Nautical Institute**

Calls for European and international action to tackle survival craft safety have been made following an incident in which an enclosed lifeboat heeled over during a training exercise.

The enclosed lifeboat – which was also approved for use as a rescue boat – had to be abandoned when it began to list heavily and became flooded with water through an open side hatch.

Investigators warned that while the craft complied with applicable stability requirements, lifeboats of that type could – in certain conditions, and especially when loaded with a few people – be prone to taking on water and heeling over.

In a report on the incident, Sweden's Accident Investigation Authority (SHK) calls for the EU to 'take necessary measures' to ensure that the requirements in respect of lifeboat stability are fit for purpose and do not constitute a risk to maritime safety.

It also recommends international action to develop guidance for the safe use of small, enclosed lifeboats with side openings near the gunwale and urges the manufacturers to revise the operation and maintenance manual for the lifeboat type.

The accident occurred in April 2021 at a training centre in Frihamnen harbour, Stockholm, while six merchant navy officers and an instructor were taking part in a refresher course session to practise rescuing survivors from the water using a lifeboat.

The 5.7m Viking-Norsafe JYN 57T craft – which had a 26-person capacity – heeled heavily to port and half filled with water during a change of helmsman. Three people were thrown into the water – which had a temperature of 5°C – while the others were able to cling to its sides until other rescue boats arrived.

'The accident was caused by the lifeboat's stability properties, which meant that small

changes in centre of gravity gave rise to large angles of heel,' SHK said.

'At system level, the accident was caused by insufficient stability requirements for small, enclosed lifeboats with side openings near the gunwale,' it added.

Investigators said tests had shown that small forces could generate large angles of heel, especially when a lifeboat is lightly loaded and has few people onboard.

Their report questions the adequacy of the International Life-Saving Appliance (LSA) Code, pointing to 'inconsistencies' in the format of the regulations. 'The stability requirements are designed for static conditions in calm water and there are no requirements in respect of dynamic forces or heavy weather,' it points out. 'The regulatory framework also fails to take into account the fact that each individual person on board a small lifeboat has significantly more impact on its stability, compared with a larger lifeboat.'

SHK said it was reasonable to assume that other lifeboats of similar types and sizes may have similar stability properties and it warned that the risks could be greatest when a craft is being used as a rescue boat.

'In a real situation, especially in heavy weather, there should be no doubt that a lifeboat has sufficient stability for the rescue tasks that may need to be performed, at least within reasonable limits,' the report concludes.

4. Technical

First Wind-Assisted Supertanker Delivered in China
Published Sep 30, 2022 by **Seatrade Maritime**

The world's first partially sail-powered supertanker has been delivered in China. The M/V New Aden was delivered this month by Dalian Shipbuilding Industry to China Merchant Energy Shipping.

With four giant "wing sails" fitted to its deck, the vessel is unofficially the first Very Large Crude Carrier to be feature wind-assisted propulsion technology.

The wind sails were developed by DSIC with participation from CMES, the China Classification Society, and Guangwei Composite Materials Co. At a height of 40 meters, each sail has a sail area of 1,200 square meters. The blade is made of carbon fiber for low weight, high durability and corrosion resistance at sea. For maximum efficiency, the sails are controlled autonomously and can also be lowered and raised at the touch of a button.

Taking an example of a hypothetical Middle-East to Far East route, the technology is estimated to reduce fuel consumption by more than 9.8%, corresponding to about 2,900 tons of CO2 emissions.

CESMA LOGBOOK (2022-4)

We were represented at the following occasions:

16/SEPTEMBER	SEAFARERS' MENTAL HEALTH SEMINAR, BRUSSELS,, BELGIUM
28/29 SEPTEMBER	WORLD MARITIME DAY, LONDON, UK
6/OCTOBER	20TH ANIVERSARY KRALJICA MORA, RIJEKA, CROATIA
7/OCTOBER	SEAFARERS' WELLNESS SEMINAR, ,CORK, IRELAND

On the front page:

World Maritime Day at London – Krajlica Mora at Rijeka – Seafarers' Wellness at Cork – Bulk Carrier OS 35 at Gibraltar

(abridged)

AIMS OF THE ORGANISATION

- **TO WORLDWIDE PROTECT THE PROFESSIONAL INTERESTS AND STATUS OF EUROPEAN SEAGOING SHIPMASTERS.**
- **TO PROMOTE MARITIME SAFETY AND PROTECT THE MARINE ENVIRONMENT.**
- **TO PROMOTE ESTABLISHMENT OF EFFECTIVE RULES WHICH PROVIDE HIGH PROFESSIONAL MARITIME STANDARDS AND PROPER MANNING SCALES FOR VESSELS UNDER AN EUROPEAN NATION FLAG.**
- **TO INFORM THE PUBLIC IN THE EU ABOUT DEVELOPMENTS IN THE EUROPEAN MARITIME INDUSTRY AND THOSE CONCERNING SHIPMASTERS IN PARTICULAR.**
- **TO CO-OPERATE WITH OTHER INTERNATIONAL MARITIME ORGANISATIONS.**
- **TO RETAIN AND DEVELOP THE HIGHEST MARITIME KNOWLEDGE AND EXPERIENCE IN EUROPE.**
- **TO BE INVOLVED IN RESEARCH CONCERNING MARITIME MATTERS IF APPLICABLE IN CO- OPERATION WITH OTHER EUROPEAN INSTITUTIONS AND/OR ORGANISATIONS.**
- **TO ASSIST MEMBER SHIPMASTERS WHO ENCOUNTER DIFFICULTIES IN PORTS WITHIN THE REACH OF NATIONS REPRESENTED BY CESMA MEMBER ASSOCIATIONS**
- **TO PROMOTE THE SEAFARING PROFESSION IN EU MEMBER STATES**

ANNUAL SUBSCRIPTION:

EURO 16.00 PER SEAGOING MASTER (WITH A MINIMUM OF 25)
EURO 8.00 PER SEAGOING MASTER FOR ASSOCIATED MEMBER ASSOCIATIONS (WITH A MINIMUM OF 25)

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