Issue No: 228
— 03.2020

6€

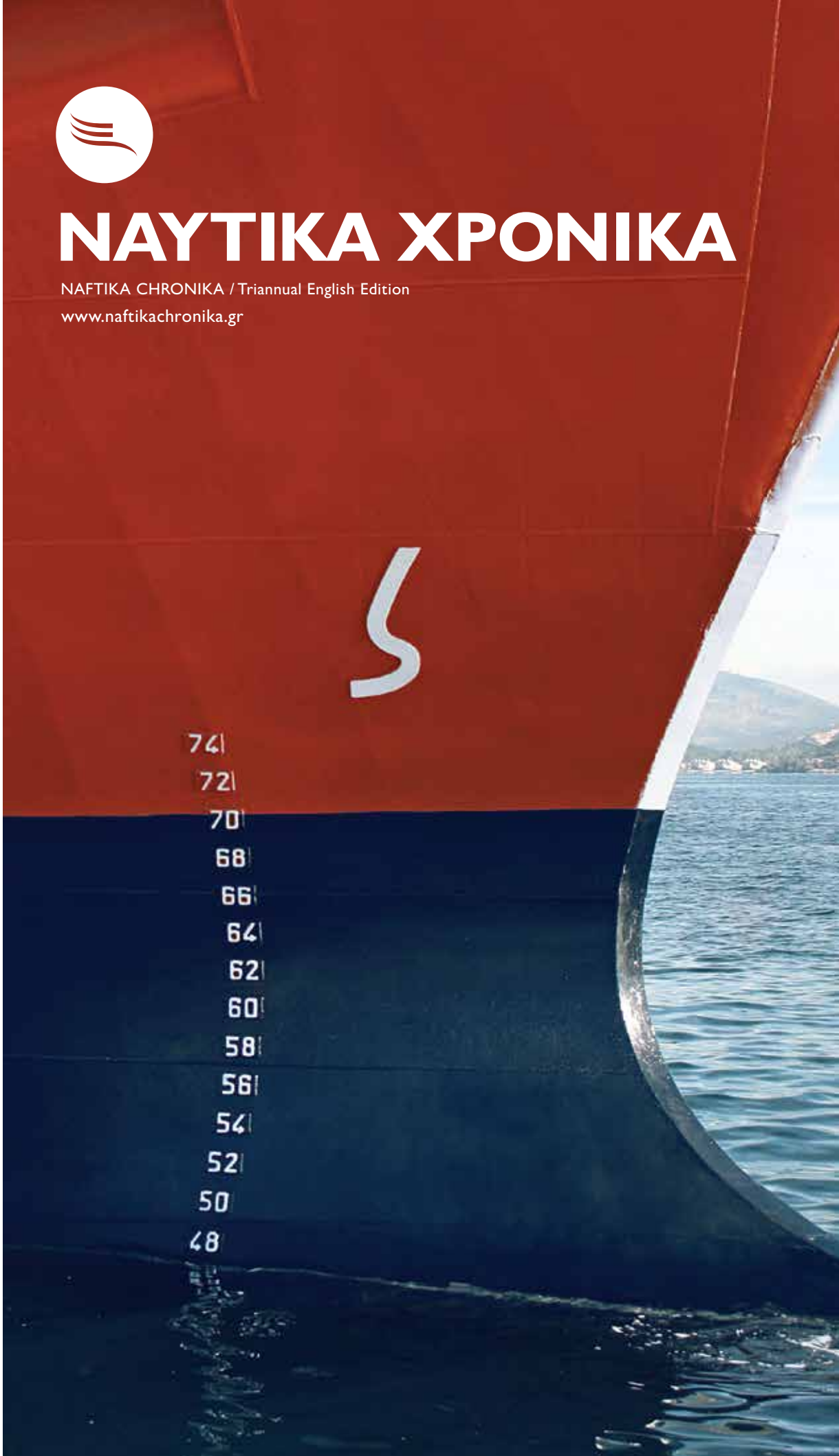
ISSUE SPONSOR

danaos

NAYTIKA XPONIKA

NAFTIKA CHRONIKA / Triannual English Edition

www.naftikachronika.gr



MARICHEM WORLDWIDE

MARIGASES SERVICES ®

Marine Chemicals & Equipment

Gases & Refrigerants

Fire, Rescue & Safety Services

www.marichem-marigases.com


danaos
Technology is our advantage
Ecology is our pride
Awards:
2004
TECHNICAL ACHIEVEMENT AWARD
2006
DRY CARGO COMPANY OF THE YEAR
2012
SHIP OF THE YEAR
2012
FRANZ EDELMAN FINALIST AWARD
2015
INTELLIGENCE BIG DATA AWARD
Danaos Corporation
www.danaos.com

MTM

MARAN TANKERS MANAGEMENT INC.

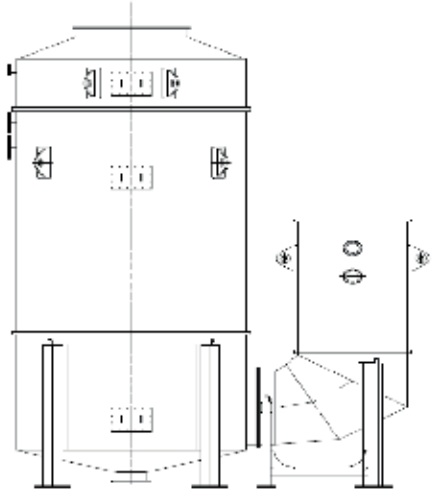
ANGELICOUSSIS GROUP

Let us introduce you
to a **sea** of **opportunities**

KANGRIM

SCRUBBERS BY KANGRIM

THE WORLD'S LEADING
MARINE EQUIPMENT MANUFACTURER



franman

www.franman.gr

GASLOG

When reputation matters you need a partner that performs.
We are a leading global provider of LNG shipping services and make LNG shipping safer, cleaner and more efficient and your investments more reliable and profitable.

Everything we do protects the value of our client's cargo, which makes us a more dependable partner and a more sensible investment.

Partners for performance
gasloglтd.com

D. KORONAKIS S.A.

Snap back free technology
since 1998

Demanding Ropes for demanding operations

Safe, Dependable, Long lasting.

Contact:
+30 210 4060600

www.koronakis.gr

TMS CARDIFF GAS LTD
TMS TANKERS LTD

Με σύγχρονο στόλο Δεξαμενοπλοίων και Υγραεριοφόρων (Tankers & LNGCs) προσφέρουμε

- Υψηλά μισθολόγια
- Επιδόματα
- Συνεχή εκπαίδευση

και εξασφαλίζουμε σε Έλληνες Αξιωματικούς καριέρα στην θάλασσα και στην ξηρά.

Το μέλλον είναι
TMS TANKERS - TMS CARDIFF GAS

TMS TANKERS LTD
Λ. Κηφισίας 109 & Σίνα,
Μαρούσι 151 24
Τηλ.: 216 0706164, 216 0706154
E-mail: crew@tms-tankers.com

TMS CARDIFF GAS LTD
Λ. Κηφισίας 109 & Σίνα,
Μαρούσι 151 24
Τηλ.: 210 8090232, 210 8090113
E-mail: crew@tms-cardiffgas.com

DOLPHINPLATFORMS
e-learning for maritime
Created & Powered by SQLearn

IMO 2020 Sulphur Cap

The **new** interactive **e-learning course**

- **Face** future challenges
- **Minimize** your risk
- **Train** seafarers and ashore personnel easily and effectively
- **Be compliant with** IMO 2020 Sulphur Cap Regulations

Learn more:
www.sqlearn.com/imo2020

Developed by: SQLearn e-learning experts

Content by: PREVENTION AT SEA

Published by
Gratia Publications I.K.E.

Executive Director
Ilias Bissias

Scientific Associate
Panos Zachariadis

Managing Editor
Giannis Theodoropoulos

Financial Analyst
Michalis Nikolaou

Special Contributors
Capt. George Georgoulis
Nikos Vergounis
Konstantinos Giannakopoulos

Commercial Manager
Chris Kapadais

Advertising Manager
Demetra Tsakou

Corporate Communications & Special Reports Editor
Charis Pappas

Creative Directors
Panos Papanagiotou
Pandora Giamalidou

New Media
Ilias Stefanidis

Photos
ΑΠΕ/ΜΠΕ/EPA
Pixabay, Unsplash

Gratia Publications I.K.E.
132 Syggrou Ave,
117 45 Athens
T: 210-92.22.501 / 92.48.006
F: 210-92.22.640
info@gratia.gr

www.naftikachronika.gr
Web strategy development by ITBOX

ISSN **1106-7152**
Κωδικός Ταχυδρομείου **1449**

March 2019
Special triannual English edition

Cover
photo: Naftika Chronika

ISSUE SPONSOR

danaos

MONACO
LATSCO SHIPPING LIMITED
Gildo Pastor Center,
7 Rue Du Gabian,
MC 98000, Monaco
+377 9777 4670

ATHENS
LATSCO MARINE MANAGEMENT INC
4 Xenias Street,
Kifissia, 145 62,
Athens, Greece
+30 210 4595100

LONDON
LATSCO LONDON LIMITED
17 Duke of York Street,
London SW1Y 6LB,
United Kingdom
+44 (0)20 7907 5050

shipping@latsco.com

Maritime Numbers

55.9%

less international flights from China. For the first two months of 2020 international flights booked from China are behind by 55.9% in comparison with the same period in 2019.

30%

Oil prices on Monday 9th of March fell by over 30%, the biggest fall since the 1991 Gulf War, after Saudi Arabia slashed its export oil prices.

€54 billion

the direct contribution of European shipping to the EU's Gross Domestic Product.

4.515 million tonnes

the volume of marine fuels sold in Singapore in January.

93

the number of ports around the world supporting the supply of LNG, according to SEA/LNG.

3.1%

the expected bulk carrier fleet growth in 2020, according to BIMCO.

50,000 sq.m

the area of the Posidonia 2020 exhibition venue.

51%

the increase in US crude exports in 2019.

$139.5 million

the expected value of total US agricultural exports in 2020.

EURONAV®

The ocean is our environment

TOGETHER WE SAIL!

Euronav Ship Management Hellas Ltd
31-33 Athinon Avenue,
Athens 10447, Greece
www.euronav.com

On the seafront

This month's top news from naftikachronika.gr

The actual capacity of the Greek merchant fleet

For the 33rd consecutive year, the Greek Shipping Co-operation Committee (GSCC) has presented statistical data on Greek controlled ships over 1,000 GT, registered under the Greek and other flags. The data has been provided by IHS Markit.

Compared with corresponding data from the previous year, during the year to March 2020, the Greek controlled fleet has decreased slightly in terms number of vessels but increased in terms of DWT and GT. According to the GSCC data, as of 02.03.2020, Greek interests controlled 3,968 vessels of various categories, of 340,823,637 total DWT, and 199,693,859 total GT. Compared with the previous year's data, this represents a decrease of 49 vessels and an increase of 1,274,280 DWT and 1,529,779 GT. The figures include 158 vessels of various categories on order from shipyards, which total 18,411,004 DWT and 13,017,734 GT.

The Greek controlled fleet is registered under some 32 flags.

The fleet registered under the Greek flag has decreased in terms of ship numbers, DWT and GT, now comprising 636 ships of 38,799,270 GT and 65,640,708 DWT as opposed to the previous year's figures of 671 ships of 39,981,741 GT and 68,261,953 DWT.

Overall, the Liberia and Marshall Island flags are at the forefront of the Greek-owned fleet with 866 and 850 Greek-owned ships, respectively, on their registers. In terms of DWT, Liberia is at 77,323,071, representing 22.7%, and Marshall Islands is at 69,344,662, representing 20,3% of the total DWT of the Greek-owned fleet. Malta comes next with 673 ships of 62,084,176 DWT.

The Greek-owned fleet stands at 7% of the world fleet in terms of ship numbers, 13.2% in terms of GT, and 15.6% in terms of DWT. The Greek registered fleet as a percentage of the world fleet, in terms of number of ships, GT, and DWT, is 1.1, 2.6, and 3, respectively. It should be noted, however, that for oil tankers, the percentages are 7.3, 7.7, and 7.9, respectively.
What is notable is that Greek parent companies represent 26.6% of the world tanker fleet and 14.7% of the Ore and Bulk fleet.
Source: Greek Shipping Co-operation Committee

Tankers: What lies ahead according to BIMCO

High fleet growth in 2019 and the coronavirus in China are clouding the outlook for 2020, despite the lower fleet growth projections, according to BIMCO.

Demand drivers and freight rates

Strong winter demand is fading away and has been reflected in falling freight rates. However, because charters are often fixed months in advance, ships with contracts from Q4 2019 are still earning high rates. Moving into the new year, oil product tanker freight rates have fallen, with smaller vessel sizes earning more than larger ones. On 7 February, average earnings for an MR tanker stood at USD 12,531 per day and those for Handysize at USD 19,114 per day, according to BIMCO. At the other end of the scale, day rates for both LR1 and LR2 tankers have fallen to USD 7,154 and USD 9,573, respectively. Rates for both Long Range tankers peaked in the last week of 2019.
Demand is always strong in Q4, reflecting consumption patterns in the major markets. Demand only begins to fade during the first quarter of the next year, which explains the still-strong tanker freight rates.

The sulphur cap factor

Another reason behind the decline in earnings is the higher cost of fuel caused by the implementation of the IMO 2020 sulphur cap, BIMCO says. As average earnings are reported on a time charter equivalent (TCE) basis, they take fuel costs into account, and as these have risen for all non-scrubber fitted vessels, earnings reported for non-scrubber-fitted ships have dropped.
Comparing the difference in earnings between scrubber and non-scrubber fitted VLCCs illustrates this difference. In early January, a scrubber-fitted ship was earning USD 22,300 per day

more than a non-scrubber fitted ship (Source: Clarksons), reflecting the savings from continuing to sail on cheaper high sulphur fuel rather than a premium for the scrubber. Scrubber-fitted vessels have also seen their earnings drop over the course of January, with the difference in earnings between the two vessel types shrinking to USD 11,885 per day. This reflects the drop in the spread between low-sulphur and high-sulphur fuel oil since the start of the year.

The China factor

Chinese crude oil imports continued the strong growth shown throughout 2019, setting a new record. Total imports hit 505.7 million tonnes – up from 461.9 million tonnes in 2018 – or an extra 146 VLCC loads (300,000 DWT). Just under half of total Chinese crude oil imports (44% in 2019) are from the Middle East, with imports growing by 11% in 2019. This figure, however, hides large discrepancies between the Middle Eastern countries, partly because of the sanctions imposed.

Imports from Saudi Arabia, China's largest seaborne supplier, were up 46.9% in 2019, an increase of 26.6 million tonnes. On the other hand, imports from Iran fell to 14.8 million tonnes, just under half the level reached in 2018.

The boom in US oil exports

US seaborne crude oil exports have also continued on their record-setting path; total exports reached 133.7 million tonnes, with Asia and Europe being the biggest buyers. The boom in US shale oil production and the lifting of the ban on US crude oil exports in December 2015 provided some much-needed tonne miles to the crude oil tanker shipping industry. In 2019, US crude oil exports generated 1,086.6 billion tonne miles, accounting for 10.2% of total seaborne crude oil trade in tonne miles.

After facing severe disruption during the trade war, crude oil exports from the US to China may be set to recover this year as a result of the "Phase One" agreement. Taking 2017 as the base year, China has committed to buying an additional USD 18.5 billion of specific energy goods in 2020. Even if the agreed figures are not reached, any extra trade between the US and China – especially in high volume energy goods – will bring additional tonne miles to the shipping industry.

Fleet prospects

BIMCO projects 1.8% crude oil tanker fleet growth in 2020, considerably lower than the 6.2% growth in 2019. The market was awash with new ships in 2019, which had been ordered so that owners could profit from the overly anticipated demand boost from the IMO 2020 sulphur cap. Older ships, which might otherwise have been sent for demolition, were kept around for the same reason. Deliveries in 2019 totalled 29.7 million tonnes while only 3.5 million tonnes left the market.

More than half the delivered tonnage during 2019 came from 68 VLCCs, with an average capacity of 310,000 DWT. The VLCC fleet grew by 8.5% in 2019, and with a further 10 VLCCs delivered in January 2020, the global fleet now has 814 ships totalling 250.7 million DWT – the highest-ever in terms of capacity and number.

BIMCO expects the product tanker fleet to grow by 2% in 2020, with 4.5 million DWT coming to the market and one million DWT leaving it.

Outlook

The optimism for a seasonally strong Q1 has been eroded by the effects of the coronavirus (COVID-19) and a warm winter in the northern hemisphere. Following the outbreak, the International Energy Agency (IEA) has adjusted its forecast, and now expects global oil demand to fall by 435,000 barrels per day (bpd) in Q1, the first contraction in over ten years. Furthermore, it has lowered its 2020 growth forecast to 825,000 barrels per day, down from 1.2m bpd before the outbreak.

US-imposed sanctions on certain Chinese-owned oil tankers, essentially removing them from the market and creating uncertainty, led to the high freight rates. But the sanctions were lifted on 31 January, and around 40 tankers, more than half of which are VLCCs, have now returned to the market, adding to the pressure created by the 68 new VLCCs delivered in 2019. But this is not the only reason for unpredictability in the sector.

The full effect of the coronavirus outbreak is still


Online Tonnage Fee Calculator
Vessel & Mortgage registration in hours
Property & Liens online registration status
Online certification services
QR Code & Online Verification System
E-documents & certificates
Online Merchant Marine Circulars
Seafarer's online verification
Online forms
Bilingual online platform
Eco Ship program
E-Books
PANAMA
MARITIME AUTHORITY
Technology & Innovation
Faster registration process
Just a click away!
www.panamashipregistry.com
General Consulate of Panama in Greece
1-3 Filellinon & Akti Miaouli,
185 36 Piraeus, Greece
+30 210 4286 441
info@panamaconsulate.gr
www.panamaconsulate.gr

impossible to predict. But because of China's size and importance to the tanker market, any disruptions to its oil trading caused by the coronavirus will have a significant impact on the tanker market.
Demand for oil products will be directly impacted by restrictions on travel – with air, road and rail transportation all affected in some way – as China shuts off cities in an attempt to stop the virus from spreading. Furthermore, the extended Chinese Lunar New Year holiday – which delayed the return to full work of many workplaces – has already lowered utilisation rates of Chinese refineries, thereby reducing its demand for crude throughput.
The EIA has lowered its forecast for Chinese oil demand in 2020 by 190,000 bdp in its February Short Term Energy Outlook, reflecting the potential fallout from the coronavirus on economic growth as well as the fall in energy demand from the transportation sector in China.
Lower Chinese demand and falling oil prices may lead to OPEC further lowering its oil output, having already agreed to trim production in December 2019.
The coronavirus outbreak could also derail the otherwise positive effects of "Phase One" of the trade agreement between the US and China. With only 9 months to increase its energy imports by USD 22.9 billion compared with 2019 levels, every month will count. China has already halved tariffs on USD 75 billion of imports from the US – including on crude oil – from 5% to 2.5%, to support its economy and imports. Despite this move, in BIMCO's view, it is highly doubtful that China will meet its "Phase One" commitments if work and trade disruption is prolonged.

New generous donation by the Panos Laskaridis family to the Hellenic Navy: A second General Support Ship for the fleet

Following "ATLAS I", the first General Support ship donated by the Panos Laskaridis family to the Hellenic Navy in December 2019, a new donation of an even newer, larger and more powerful ship is now uderway. The new ship, named "VICTOR", is 85 meters long and has a displacement of 4,500 tons, built in 2002. She is larger than "ATLAS I" and is expected to join the fleet shortly after Easter 2020, renamed as "HERCULES".
The new ship features 2 propulsion engines of 9,600 horsepower, 2 axial generators, 4 transverse propellers (2 fore and 2 aft), in addition to the 2 main propellers.
In addition she boasts DP2 capability, which means stabilization in any weather conditions (also available by "ATLAS I"), thereby providing the Navy with opportunities for engagement in operations which previously could not be undertaken. With a top speed of 15 knots she has a large carrying capacity of over 2,600 tonnes on her open deck.
Both ships have been designed with operational flexibility in mind, meaning they can carry heavy tanks and combat and support vehicles, cranes, heavy construction and containers in configurations and capabilities as the needs of each shipment.
A spokesman for the family said: "In these hard times that our homeland is facing today, any enhancement of our Armed Forces' defensive capability is simply an obligation of all us, Greeks."
The Chiefs of the Hellenic Navy and the Defense General Staff welcomed the reinforcement of the Navy with one more well-deserved unit that will soon join the fleet.

Maersk: Strong market rebound from April

A.P. Moller-Maersk is expecting that the Covid-19 fallout will soon peak, and a strong market rebound will follow in the next two months.
Following the release of the leading container shipping company's last quarter results for 2019, CEO Soren Skou said during an interview with Bloomberg TV that "Over the last two and a half weeks we have seen a steady decline in the number of new cases and that is positive," adding that if this continues in the next two weeks, after a difficult March, there would be a strong rebound in April.
A.P. Moller-Maersk's lower-than-expected financial results have alarmed investors, who are uncertain about 2020 because of the coronavirus outbreak. The CEO of the Danish container shipping giant said that over 50 shipments to China had been canceled in mid-February, noting that much will depend on the developments regarding the Covid-19 outbreak.
A.P. Moller-Maersk reported EBITDA of USD 1.5bn, while analysts had forecasted $ 5.78 billion, and total revenues reached $ 39.28 billion. The company expects 1-3% market growth this year in line with 2019's 1.4%.

The contribution of the Ioannis S. Latsis Foundation and SYN-ENOSIS to Public Health

The John S. Latsis Public Benefit Foundation and the Non-profit Greek Shipowners' Social Welfare Company 'SYN-ENOSIS' announced a public call for submission of applications for participation in


TOTOTHEO
MARITIME
Continuous Connectivity
Business Applications
Optimised Communications
Guaranteed Performance
Fully Managed Service
Controlled Costs
The true value of **connectivity** lies in the **possibilities** it offers
www.totheo.com

the "Collaborating for Health" Programme.
The Programme's goal is to finance small and medium-scale projects in order to meet the urgent needs of the public health sector and to improve the services of health care providers in Greece through a) the supply of medical equipment and b) the upgrade of their infrastructure.
The 3rd Cycle of the Programme is addressed to General Children's Hospitals and General University Hospitals with the aim of upgrading their Paediatric Clinics/ Departments/ Units, Health Centres, as well as to non-profit organisations active in the health care sector in Greece. Particular emphasis will be given to the support of health care providers facing increased numbers of unaccompanied minors.
Through the Programme, donations in kind will be made, co-financed by the John S. Latsis Public Benefit Foundation and the Non-profit Greek Shipowners' Social Welfare Company 'SYN-ENOSIS'.

India is now the world's 5th largest economy

India now ranks among the top five countries with the largest economies, based on GDP. According to data by the International Monetary Fund (IMF), the Asian country has managed to climb up to fifth place on the list, behind the US, China, Japan, and Germany. In this ranking, India has leapfrogged France and the UK.
The country's GDP growth has been among the highest in the world due to the upward growth rates the country has experienced in recent years. According to the World Economic Forum, this rapid rise has been fueled by a number of factors, including urbanization and technologies that have improved efficiency and productivity.
However, despite its strong economic growth, India remains one of the countries with the highest poverty rates. A large part of the population does not have access to sanitation facilities, while access to development and new opportunities has been uneven, varying by geographic location.

Will HFO be banned in the Arctic Ocean?

Recently, the seventh session of the Sub-Committee on Pollution Prevention and Response (PPR7) convened in the halls of the IMO in London. Among the issues discussed, the one that virtually monopolized the interest of the Sub-Committee was the ban on the use and transport of HFO by ships crossing the Arctic Ocean.
On Friday, 21 February, a working group within PPR7 submitted a report recommending to ban the use of heavy fuel oil by vessels in the Arctic starting from July 1, 2024. This proposal now awaits the final approval by the IMO's Marine Environmental Protection Committee 76 (MEPC 76) this autumn.
There are certain exceptions to the proposed ban. For example, ships engaged in oil spill preparedness and response are exempted. States whose coastlines border Arctic waters may also waive the ban for ships flying their own flag until July 1, 2029. This exemption was made to secure Russia's support on the measure, as up until recently, Moscow did not agree with it.
Environmental organizations say the proposal contains several "loopholes" that make it practically impossible to implement in 2024. The negative consequences of burning marine fuels with high carbon emissions and the devastating effects of heavy fuel spills are maximized in the Arctic environment, making them almost impossible to clean. The Clean Shipping Coalition and the World Wildlife Fund are pressuring the IMO to ban HFO in the area.
On the other hand, companies in the northern countries, and particularly in Russia, stress that if the proposal is implemented, the cost to end-users in those countries will exceed $600 million, due to higher prices of desulphurized fuels.

The prospects of LNG as the marine fuel of the future

As we are already in the first months of the sulphur cap implementation, there are still many conflicting opinions about whether LNG could be the fuel that will meet the IMO's goals of reducing emissions from shipping.
In its latest report, SEA\LNG, the multi-sector industry coalition that aims to promote the use of LNG as a marine fuel, cites some interesting

HOME PORT OF GLOBAL MAJORS

The state of art facilities, experienced team and high level of safety & quality has always been the passion within us.

As Beşiktaş Shipyard we are proud to be the most active ship repair yard of Europe with annually 180 ship repairing projects of most respectable ship owners and ship managers all around the world.

www.besiktasshipyard.com

BesiktasShipyard

data on liquefied natural gas. Welcoming the fact that the infrastructure for the supply of LNG ships has grown significantly, SEA\LNG reports that 93 ports around the world support LNG supply, while another 54 have made significant investments.

In terms of improving air and human health, ships have the potential to reduce their SOx and NOx emissions through LNG. The coalition notes that if liquefied natural gas is combined with improvements to the Energy Efficiency Design Index (EEDI) for ship design, the IMO's 2030 targets are easily achievable.

Last summer, SEA\LNG released the results of DNV GL's research, which state that the IMO's 2050 targets require the introduction of zero-emission technologies; however, these cannot be implemented immediately. Fuels such as hydrogen and ammonia can clearly play an important role, but currently, there is no legislative framework for their production or the refueling of ships in ports. DNV GL's research concludes that given any scenario, LNG is the only viable fuel on the market.

As an indication of the continued penetration of LNG into shipping, SEA\LNG points out that according to current data, there are 175 LNG-fueled ships, while 203 are on order. The corresponding numbers in June 2019 were 163 and 155. At the same time, at the beginning of 2019, there were 6 LNG Bunker vessels worldwide, and this number has now increased to 12 while another 27 have been ordered or are being built.

Finally, significant developments in boosting LNG use in Asia are Singapore's ongoing efforts to incentivize domestic shipping companies to adopt LNG use, the two consortiums formed in Japan which are to launch the country's first LNG bunker vessels by the end of 2020, and the delivery of Total's first LNG Bunker vessels.

The maritime industry's eyes are turned on Angola

At a press conference to a South African television channel, Angolan Minister of Oil and Natural Resources Diamantino de Azevedo announced the government's plan to increase the production, refining, and distribution of oil and oil byproducts. Although Angola produces over 1.4 million barrels of oil a day, the minister reminded that the country also imports about 80% of its needs in terms of crude oil byproducts.

For this reason, three major projects have been launched for the construction of modern refineries. In addition, the expansion of the refinery in Luanda, the capital of Angola, is also underway. When these four projects are completed, the country will be completely self-sufficient in oil and will be able to export the surplus it produces. The minister added that a parallel goal is to increase the storage facilities onshore.

Regarding the mining sector, Mr. Diamantino de Azevedo stated that the government's mapping pro-

gramme for the entire mining sector is in its final phase and that soon it will be able to announce the country's real capacity in terms of mining. The government, with the assistance of multinational corporations, has set up exploration programs to detect deposits of manganese, copper, iron, and other metals. Regarding iron, the minister spoke about the iron mining project in Cassinga mines, which were being modernized and would soon include new plants for converting the ore into steel.

Regarding the country's diamond industry, the minister stated that along with the increase of production, the diamond-cutting factories in the provinces where being expanded and modernized.

World cereal production estimates revised upwards

The Food and Agricultural Organization of the UN (FAO) recently issued a new Cereal Supply and Demand Brief, raising its estimates for 2019 world cereal production to 2.719 million tonnes due to higher maize outputs in West Africa and Ukraine. The brief offers a preliminary forecast of 763 million tonnes for 2020 worldwide wheat production - very close to the near-record level of 2019 - and indicates that coarse grain output in 2020 will likely be strong in Argentina, Brazil and South Africa.

World cereal utilization in the 2019/20 cycle is now forecast to reach a record level of 2.721 million tonnes, driven by higher food, feed and industrial usages.

FAO raised its forecast for world cereal stocks at the close of the 2020 seasons to nearly 866 million tonnes, resulting in the global cereals stock-to-use ratio staying at a comfortable level of 30.9 percent.

FAO also forecasts world trade in cereals to rise by 2.3 percent to 420 million tonnes in 2019/20, the second-highest level on record, with wheat shipments accounting for more than half of the expected increase.

According to the Food and Agricultural Organization of the UN, world food prices declined in February for the first time in four months due to a sharp fall in the export prices of vegetable oils, partly driven by fears that the coronavirus (COVID-19) outbreak will slow global demand.

The FAO Food Price Index, which tracks monthly changes in the international prices of commonly-traded food commodities, averaged 180.5 points in February, down 1.0 percent from the previous month but still 8.1 percent higher than a year earlier.

The FAO Vegetable Oil Index declined 10.3 percent from January, with international palm oil prices falling by even more on account of higher-than-expected output in Malaysia, a temporary drop in India's import demand and concerns over the spread of COVID-19.

The FAO Cereal Price Index declined 0.9 percent in February. Wheat prices were lower, reflecting well-supplied markets, while maize prices retreated as demand from the livestock

feed sector dipped amid expectations of a weakening global economy. By contrast, international rice prices rose, buoyed by strong demand from Far Eastern and East African buyers.
The FAO Meat Price Index was down by 2.0 percent from January, influenced by reduced imports by China impacted by delays in cargo handling in ports. Drought-induced slaughter in New Zealand exerted further pressure on ovine meat price quotations, while poultry meat prices were affected by lower imports by Asia.
The FAO Dairy Price Index rose 4.6 percent, led by surging price quotations for cheese, partly linked to reduced milk output in Australia. Milk powders, by contrast, dipped as logistical bottlenecks slowed purchases by China, the world's largest milk powder importer.
The FAO Sugar Price Index rose 4.5 percent amid prospects of lower production in India as well as in Thailand, combined with a strong global import demand.

IMO's Sulphur 2020: any ships found to be non-compliant may be detained

Port state control authorities have begun to enforce the IMO's Sulphur 2020 from Ist March, making it an offense for ships to carry fuel that contains a sulphur content higher than 0.5 percent unless the ship has an Exhaust Gas Cleaning System.
The International Chamber of Shipping reminds shipowners and operators of the impending ban and reiterates the fact that any ships found to be non-compliant face the prospect of detention. As of March Ist, enforcement agencies will no longer have to prove usage. Showing that vessels without Exhaust Gas Cleaning Systems have non complient fuel aboard will be enough to prove a violation. Major port state regimes including Paris MoU, Tokyo MoU and the United States Coast Guard (USCG), have made it plain that they will rigorously enforce the requirements.
Guy Platten, Secretary General ICS said: "Since the introduction of IMO 2020 on Ist January, ships have been given a 'grace period' while the industry transitions to low-sulphur fuel. As of Ist March this will no longer be the case. Any ship found in non-compliance faces the prospect of serious fines and even detention. The International Chamber of Shipping has been made aware that major port State inspection regimes including the United States Coast Guard (USCG) and the Australian Maritime Safety Authority (AMSA) have made it clear, in no uncertain terms, that detention of ships found to be non-compliant is both possible and legally permissible. The information ICS has received is that shipowners are fully compliant and ready for the Ist March. We are simply reminding shipowners and operators that these new rules will come into force as of Sunday Ist March".

Stop the press: the Coronavirus outbreak

The International Chamber of Shipping (ICS) has issued guidance for the global shipping industry to help combat the spread of the Coronavirus (COVID-19). The comprehensive 22-page document has been produced in collaboration with prominent international bodies including:

- The World Health Organization (WHO)
- The International Maritime Organization (IMO)
- The European Centre for Disease Prevention and Control (ECDC)
- The International Maritime Health Association (IMHA)

Among a raft of measures highlighted in the guidance the document contains advice on managing Port Entry Restrictions, offers practical Protective Measures Against COVID-19 for Seafarers, including an Outbreak Management Plan. The guidance document also provides information around important topics including Port Entry Restrictions, Pre-boarding Screening, Education and what to do in Suspected Cases of Infection. There is also straightforward advice on Hygiene Measures for Seafarers on Ships, Managing High Risk Exposure, Case Handling, Isolation and Cleaning, Disinfection and Waste Management.
The guidance document has been designed to support all types of ships which operate in international waters with the most up to date and effective information needed to limit the spread of the Coronavirus. It will be distributed to seafarers through the International Chamber of Shipping's network of national member associations, is free to download from the ICS website www.ics-shipping.org and will be shared via social media. The International Maritime Organization will circulate the ICS guidance on COVID-19 as an annex to an IMO circular letter and other shipping organisations will also be encouraged to distribute the guidance to ensure that it receives the widest distribution possible.

ALL FLAGS ARE NOT ALIKE

#1 Flag for Greek Shipowners

LIBERIAN REGISTRY

www.LISCR.com

We believe strongly in appropriately apportioned accountability and responsibility through alignment and incentivization

Andonis and **Filippos Lemos**,
Enesel Group Principals.
Interviewed by **Ilias Bissias**

The history of contemporary Greek shipping has traditionally been linked mostly to families from the Aegean and Ionian Islands that have had a long-standing presence in ship owning and ship management. With a maritime history dating back to 1848, the Lemos family is one of the leading paradigms of the evolution of Greek shipping, especially in the 20th century and beyond. The family, which began its maritime activity in the early 19th century, has evolved over time and has strengthened its international reputation to become synonymous with quality tramp shipping. The sons of Nikolas S. Lemos, Andonis and Filippos Lemos, have followed their father's values and traditions. Since the establishment of ENESEL SA in 2003, they have managed to successfully adapt to today's market demands to create a ship management company with a forward-looking strategy and a commitment to social benevolence. With a fleet of 8 modern tanker vessels, 10 containerships, and 6 more on order, the company is committed to serving the markets with a state of the art fleet. Following in their father's footsteps who regularly participated with articles and interviews in editorial features of *Naftika Chronika*, in their first joint interview to our magazine Andonis and Filippos Lemos share their thoughts on the challenges that shipping is facing today.

Historically, it is unclear whether consolidation has worked in our industry.

What are the key challenges facing the traditional family-run shipping companies today? Is consolidation between companies inevitable?

This is a broad and complicated question that can be interpreted in different ways, which are specific to the wide range of entities that fall under the bracket of 'traditional family-run shipping companies.'

For the sake of simplicity, we will redefine the question to apply to the standard perception of your categorization: owner-controlled, owner-managed, highly centralized decision making, market exposed and relatively smaller balance sheet with a market and regulation-driven approach to innovation and management culture – a fundamentally reactive as opposed to a fundamentally proactive company when it comes to management culture (not investment culture). It should be noted that we do not consider our own company as falling into the range of definitions that may apply to this broad category.

When taking the above categorization into consideration, we perceive the following three key challenges:

Firstly, the shakeup of the original depreciation cycle due to a) ever-greater regulation, driven predominantly by environmental concerns, b) innovation leading to faster redundancy of previously 'cutting edge' designs, and c) ever-shorter delivery time on account of shipbuilder competition.

Secondly, the shortage of first class shore-based and ship-based personnel, which requires forward-looking approaches to remuneration, training, and incentivization, and which do not lend themselves to the patriarchal and centralized management structure.

And, finally, the requirement for ever-larger balance sheets and financial fluency to achieve competitive financing. The market for finance is bifurcated into the haves and have nots.

As regards your question on consolidation, the answer is complicated by the shakeup of the original depreciation cycle in that one of the key advantages in shipping is the ability to act decisively and nimbly to take advantage of the tremendous opportunities which avail themselves off the back of a new depreciation cycle. As such, large fleets can suffer long term consequences as a result of their inability to be offloaded

from balance sheets, whereas relatively smaller fleets can be turned over faster. In terms of asset deployment, bigger, newer ships will take care of the need to deploy large balance sheets with ease - i.e., a fleet of 100 ships can have the same gross value as a fleet of 20 ships (value is a product of quality, size, and sophistication). Historically, it is unclear whether consolidation has worked in our industry – the jury is out for the time being. What we are certain of is the need to master demanding charterer and regulator requirements, which comes down to a willingness to invest in people and systems and not merely scale. Many large companies fail woefully in this regard, and many succeed, and the same applies to smaller companies. Additionally, it is of vital importance to have a cross-sectoral view whereby an owner can assess risk-adjusted opportunities with a point of fair comparison as opposed to the single sector focus, which so often leads to repeated bad decisions in one market by the same players.

The ship owning community seems to be somewhat divided with respect to slow steaming. What are your personal views on this issue?

Slow steaming will definitely reduce the immediate carbon footprint of our industry. However, it is critical that ship owners be incentivized to invest in more efficient designs, and therefore speed reductions must be adjusted for efficiency metrics. Additionally, our industry should further be incentivized with a carbon trading scheme, which will require careful regulatory planning. It is crucial that regulators work closely with shipowners, shipyards, engine makers, and charterers and receivers also (which is often overlooked), and people with domain space expertise to design and enforce the best scheme and avoid the sad legislative errors of IMO 2020 and the Ballast Water Treatment regulations.

Compared to other European and Asian maritime capitals, what are the competitive advantages of the Athenian metropolis for a modern ship management company?

The Athenian metropolis's competitive advantages are that, firstly it provides access to a first-class human resource pool with domain space expertise in shipping, secondly it is an unrivalled network, which houses the world's largest ship owning community and provides information and

knowledge sharing which cannot be surpassed, and thirdly it is historically a supportive political and legislative environment.

The Greek Minister of Shipping is planning to revise the operating framework of the Greek Shipping Register to increase its competitiveness. What would you advise him on this?

We would advise the Minister to focus on ever greater administrative efficiencies. For example, to shorten the time and process required for flag registration in the name of a Greek company in the form of an ENE/SME (Special Maritime Enterprise), and enable communication/ documents' pre-clearance for flag registration by email rather than paying physical visits to the Registry; to make minimum Greek crew requirements more flexible, and provide additional incentives for the employment of cadets (see further details below); to adopt a faster/less bureaucratic approach when dealing with technical requests; to adopt modern means of official reporting such as electronic logbooks and engine record books.
We would also advise the Minister to provide further incentives and support for the employment of Greek seafarers. He should continue to liaise closely with the Union of Greek Shipowners and create a more flexible synthesis of crew matrix, i.e., a minimum number of Greek crew, but no obligations as to the positions of said Greek seafarers, or at the very least 2 Officers of any rank and 3 crew to give the much-needed flexibility and opportunities to employ Greek nationals and to train and nurture their careers. We should also move to an ITF based wage scheme, and let the market decide what officers and ratings should be paid - this would allow Greek shipowners the opportunity to employ Greek nationals at all levels, as opposed to the currently prohibitive salaries which mean they are simply not offered jobs. In other words, if Greek nationals are prepared to work for a certain (fair and appropriate) salary, they should not be prevented from doing so by rules which mandate a higher minimum amount.

Next year you will be receiving several newbuildings. Are you optimistic about the wet market in the coming years? What parameters contribute to your optimism?

We are, in fact, receiving six newbuildings, all Suezmaxes. We approach our investment and newbuilding programmes with cost leadership at the forefront of our decision making. Our ships need to be last man standing assets, which means that they definitely need to be cheaper to run than the vast majority of the competition. This is partially achieved through fuel and operational efficiencies, but the biggest cost in our capital-intensive industry is the cost of capital. The best way to reduce the cost of capital is to deploy less of it, and the best way to do this is to buy well-priced ships. For us, if the cost is low relative to the realistic life of the ship, we feel confident to invest.
Our views on the tanker market are neutral to marginally optimistic, mainly driven by tonne mile effects of US exports. That being said, our investment strategy focuses on a risk-return driven framework which drives a market agnostic strategy.

Alba Graduate Business School

THE AMERICAN COLLEGE OF GREECE
Pierce
Deree
Alba
1875

Shipping Matters

MBA in Shipping

MSc in Shipping Management

MSc in International Shipping and Finance

Henley Business School
UNIVERSITY OF READING

5 REASONS TO STUDY SHIPPING AT ALBA

1. Choose the program that meets your goals.
2. Be part of a leading European graduate business school recognized by both the international Business School community and the corporate world.
3. Experience teaching delivered by world renowned academics and distinguished industry speakers in the field.
4. Utilize the Alba powerful shipping network and enjoy strong links with the industry.
5. Embark on a journey of self-awareness and personal development.

ASSOCIATION OF MBAS ACCREDITED · EFMD EPAS MSc in Finance MSc in Strategic HRM ACCREDITED · NECHE · ICS Institute of Chartered Shipbrokers · Hellenic Shipbrokers Association · CISI

Downtown Campus: 6-8 Xenias Street, Mavili Square
Tel.: +30 210 89 64 531, Fax: +30 210 89 64 737, **www.alba.acg.edu**

The Lemos Group takes pride in its equal opportunities policies that allow women to thrive in this traditionally male-dominated industry. What policies have you developed for recruiting and retaining women executives ashore and women mariners onboard?

Our family history stands out on account of the unique role that strong women have played in shaping the course of the company and the family and ensuring our survival. The first lady to do this who now stands out as the symbol of the strength of women in our company was our great grandmother Katingo (known as Kyrakatingo). Through her frugality she saved enough to help us rebuild our ship owning presence in the early part of the 20th Century. As a result of this we always have a ship named after her in our fleet.
Additionally, we are a meritocratic institution, we have a powerful recruitment system, and it is quite clear that when people are hired on merit, the result is a higher proportion of successful female applicants in our Group than is the case in our industry as an average. We believe that a workplace thrives when the best candidate is hired for a role – in order to achieve this, we employ our own proprietary methods for incentivization and alignment, which in turn gives us access to the best talent in the market. It just so happens that women represent a healthy proportion of that market, and due to the relatively low participation of women at our competitor firms, we get a relatively larger pool from which to choose. Ultimately, we are in the business of employing first class people, and from our vessels to our shore-based personnel, we offer job opportunities and advancement to those who perform best and have the highest potential.

We have kept a strong focus on the need to put our team before our personal interests: they come first, period.

Which traditional Oinoussian family values have you kept, and which ones have you revised in this era of uncertainty for the shipping industry?

We have kept a strong focus on the need to put our team before our personal interests: they come first, period. We have also kept a strong focus on domain space expertise and knowledge at the asset level. In investment terms, we are strongly geared towards a conservative balance sheet and risk strategy with a philosophy that turns its back on greed. A strong focus on the wellbeing of our seafarers and a well refined philosophy that shore-based personnel work for and provide a service to our vessels and their crew, not the other way around.
We have revised our views on centralization, and believe strongly in appropriately apportioned accountability and responsibility through alignment and incentivization. We have also revised our views on customers and counterparties whereby we see ourselves as the providers of a service first and foremost. We have reviewed our approaches to analysis and data-driven analytics; these now form the backbone of our decision making and our approach to market risk, whereby today, we focus on market agnostic investment strategies.

Your family, and you personally, have been involved in safeguarding the maritime heritage of your paternal homeland, Oinousses. In which areas do you believe that Greek society and especially the island communities need financial and moral support?

Our industry does a lot, but often it does not let the broader community know about its contribution.
Taking just two recent examples: the Union of Greek Shipowners, through the Greek Shipowners' Social Welfare Company Syn-Enosis, has provided food and welfare provisions to countless families and has refurbished maritime schools across the nation. Additionally, last December a small group of Shipowners (including ENESEL) made a significant donation through Syn-Enosis towards the cost of 10 fully equipped high-speed patrol vessels to be supplied to the Hellenic Coast Guard (we are particularly proud to support the Hellenic Coast Guard in its work, and in so doing to recognize its important contribution to the Greek shipping industry).
The above captures only part of the work done at a collective level as it would take many more pages to set out the endeavors of individual Greek shipowners in giving back.
As a family - our father, in fact – we built and founded the Oinousses Maritime Museum, which we proudly maintain to this day. Additionally, we continue to provide support and funding for the Naval School in Oinousses, the sailing school of Armenisti, the Monastery and countless traditional building maintenance and renovation programmes. Finally, we have supported the Hellenic Coast Guard and Navy over many years, and at an international level, we are the founders and major funders of Common Seas (www. commonseas.com), an organisation which exists to find, test, and facilitate solutions to the global plastic pollution crisis.

KATRADIS MARINE ROPES INDUSTRY

We are pioneering with Nika-Siri®

High Performance Ropes MEG4 Certification

Approved by Lloyd's Register

KATRADIS Marine Ropes Industry SA follows all the required processes under the framework of **MEG4**, providing all the required data and services to the end users from mooring line selection recommendations to line management plan and proper rope usage guidance. It is a great an honor for us to announce that **Lloyd's Register** independent inspection agency affirms that **Siri® High Performance ropes** and **Nika-Flex Mooring Tails** have been successfully approved in accordance with **MEG4** specifications and are in compliance with the requirements of OCIMF.
For your safer, stronger and simple mooring operations, **we are always pioneering**!

KATRADIS
EST. 1936
KATRADIS GROUP OF COMPANIES

MEG4 Approved by Lloyd's

UHMWPE, LCP & Mixed Ropes for LNG / LPG Carriers and Tankers - Steel Wire Ropes - Sacrificial Anodes
Anchors & Anchor Chains - Port Development Equipment - Vessel Deck Equipment

11, Psaron str., 186 48 Piraeus, Greece, T: +30 2104060300
F: +30 2104626268 & +302104619631, E: info@katradis.com - www.katradis.com

European shipping industry at a crucial crossroads

ESW 2020: What does the future hold for European shipping?

In recent years, global shipping has faced a number of challenges such as environmental regulations, geopolitical instability, and economic slowdown, which, to a large extent, are shaping its future.

The European maritime industry is facing an additional hot issue, namely the need for a holistic and common European maritime policy, which will take into account the new Commission's climate and environmental objectives as well as the onerous requirements of compliance with environmental regulations and shipowners' large-scale investment.

ESW 2020, which took place in Brussels from 17 to 21 February, featured a series of events with high-profile keynote speakers from the European Union, the wider shipping community, and the world of finance, as well as panel debates and roundtables that focused on the hot issues that the industry will have to face in the new decade.

In the following pages, *Naftika Chronika* hosts the views and ideas expressed by some of the distinguished guests at the ESW 2020 Conference.

Edited by
Giannis Theodoropoulos

Photos by
Shipping Innovation

Climate change at the top of the agenda

As expected, the attention of the European maritime community is currently focused on the new European Commission's intention to establish climate change policies and possibly include shipping in its new environmental protection package. The new Commission's members have already begun speaking publicly about climate change and the environment, and in a recent announcement, European Commission Vice President Margrethe Vestager stated that green change is closely intertwined with the new digital age.

The European Shipping Week was attended by officials from the European Commission, European Parliament, ministers of member states, and the Secretary-General of the IMO. At the various events, views and proposals were presented regarding the role of shipping in the new "green" era and the challenges that the industry will face in this new decade. The huge divergence in the views of market players was apparent. As a knowledgeable member of the audience confided in us "the divergence of views reflects the sector in which one is involved, its modus operandi, the available solutions, and also the difference between a populist and a conservative approach". It goes without saying that some of these views cannot be successfully and realistically implemented as they are not supported by the existing technological means.

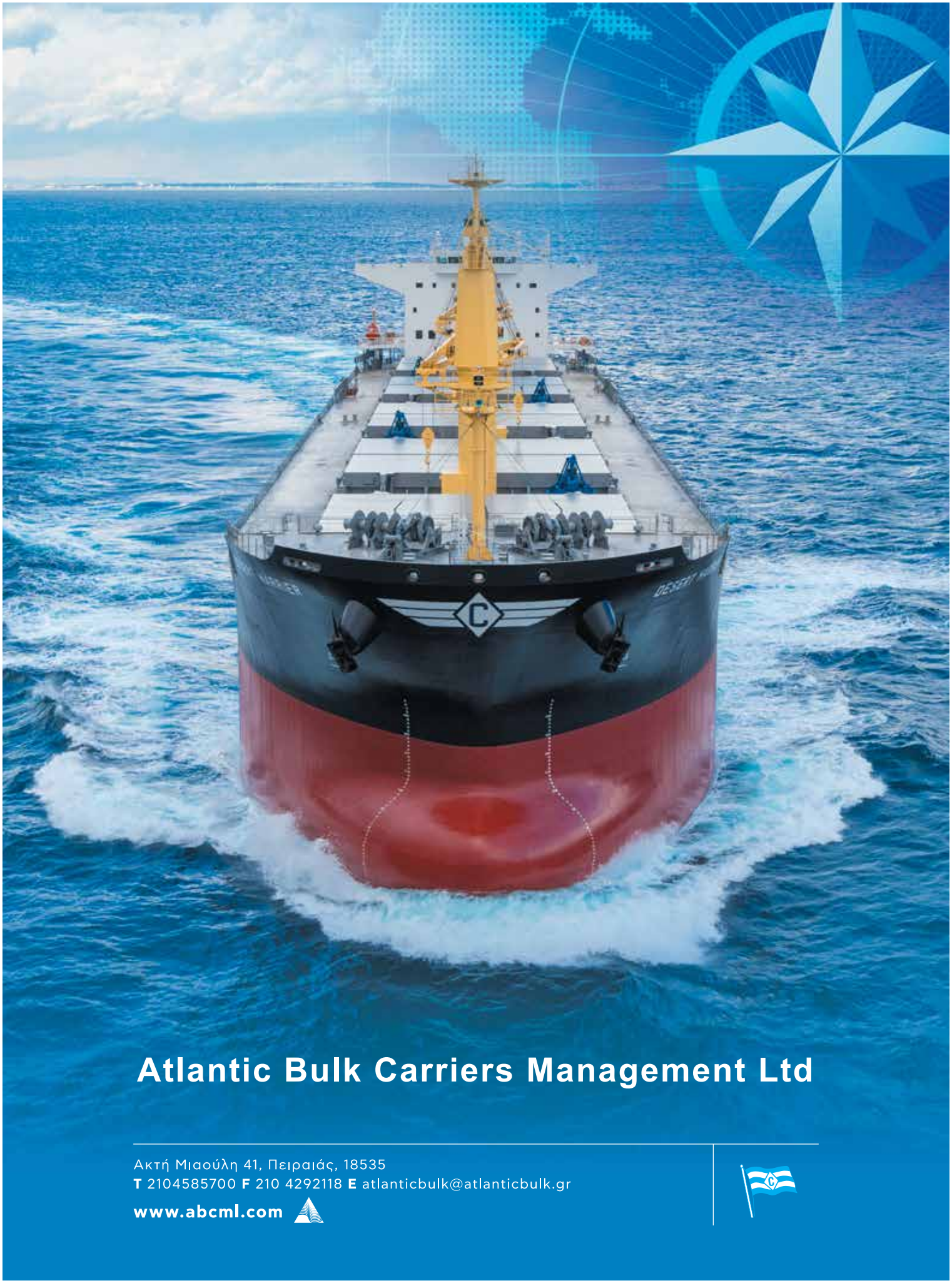
Greek Minister of Shipping and Island Policy Ioannis Plakiotakis realistically stated that while Greece supports innovative proposals, the industry is seeking medium-term and realistic solutions. Any solutions, however, should be carefully implemented, taking into account the different types of ships and the different markets in which they operate.

Finnish Member of the European Parliament (MEP) Henna Virkkunen pointed out that emissions from the shipping industry are indeed increasing, but at the same time, there is a growing need for the transport of goods by sea. The MEP argued that shipping, like the airline industry, is not like road transport and added that if Europe legislates without taking into account international developments and laws, it risks losing its competitiveness.

Waterborne Transport Director, DG Move of the European Commission, Magda Kopczynska, noted, however, that the Commission's aim is to make greener and cleaner technologies in the future for the benefit of the user himself. On exactly the same wavelength, Diederik Samsom, head of Vice President Timmermans' Cabinet, said that if the Green Deal, which is the vision of the new Commission, did not get the agreement of all parties and all social partners, it would not materialize.

All the representatives of the new Commission agreed that this is an Agreement, and therefore all interested parties should agree on how Europe should move. The conference ended with Commissioner for Transport Adina Valean, who initially stressed that debates do not always conclude in complete agreement.

Commissioner Adina Valean commented characteristically: "The shipping industry is at a crossroads, and we all are rooting for its success going forward.


Atlantic Bulk Carriers Management Ltd
Ακτή Μιαούλη 41, Πειραιάς, 18535
T 2104585700 F 210 4292118 E atlanticbulk@atlanticbulk.gr
www.abcml.com

The shipping community is the backbone of our economy, and therefore, we should all support this sector. The importance of shipping and the wider maritime cluster for the European economy, together with its role in connectivity, is undeniable and should be preserved.

Maritime transport is global by nature. World trade relies on ships, the cargo they carry, the service industries that support them, as well as on the regulatory framework in place for the global merchant fleet to maintain a level playing field in the sector.

This poses a challenge in terms of getting the level of regulation right. We want to provide industry with a framework that will support further growth – sustainable growth. At the same time, we need to ensure that our European position is in sync with developments at the global level, notably at the IMO.

This Commission's priorities have been set out in the European Green Deal, which clearly identifies waterborne transport as a key area for action within the transport system.

This means stepping up our efforts. For the Commission, it means coming up with a basket of measures that get the balance right between the different regulatory and non-regulatory aspects. It's clear that sustainability and business growth can and must go hand in hand.

But clearly, the EU is not responsible for all the seas and oceans of the planet, nor for all the vessels that cross them.

The Commission remains strongly committed to an international approach led by the International Maritime Organisation, as that really is the best way to tackle global issues, such as climate change.

While digitalisation poses its own challenges, it is a huge asset in the quest for sustainability. By pioneering innovative maritime technologies at home, we can set global standards, both from an environmental and business point of view. Digitalisation has opened doors to an array of innovative technologies. Shipping must make the most of these opportunities. Now is the time to reap efficiencies and integrate shipping even more into the global logistics chains.

At the same time, geopolitical developments and rising protectionism call for multilateral approaches. Through free trade agreements and maritime transport dialogues with our international partners, the EU is building alliances to eliminate protectionism and promote the principles of free trade and unrestricted access to markets".

The conclusion reached by all was that there are many different views expressed, which must somehow be reconciled.

MODERN CLASS FOR SMARTER OPERATIONS

Today's market needs smarter solutions – and a modern classification partner. Find out how our modern classification solutions can turn possibilities into opportunities – and make your operations safer, smarter and greener.

Learn more at **dnvgl.com/maritime**

Europe cannot afford to be an inward looking region

By **John C. Lyras,**
President, Paralos Maritime Corporation S.A./Board Member, ECSA and UGS

***Naftika Chronika* presents the transcript of Mr. John C. Lyras' answers to the questions addressed to him by the audience during the discussion on trade and competitiveness. Mr. John C. Lyras' views not only represent the viewpoint of the Union of Greek Shipowners but are also an insightful approach to how ship management companies must remain in Europe and how the EU has to function more like a flag state than it has done so far.**

Mr. John C. Lyras, Principal, Paralos Maritime Corporation S.A., has served as President and Vice President of the Union of Greek Shipowners (UGS), as President and Vice President of the European Community Shipowners' Associations (ECSA) and as a member of the Board of the International Chamber of Shipping (ICS). Mr. Lyras is currently the Chairman of the UGS Foreign Affairs Committee.

Financing and the profile of EU shipping

Shipping finance is vital as without finance, it is not possible for Europeans to maintain the 40% share of the world fleet, which is a very important strategic, commercial, and economic asset for Europe. It also demonstrates something that not many people realize, namely that we are major service providers to the world as Europe's involvement in world trade is around 15-20%.

This means that most of the European fleet is involved in cross-trading fleet, a very large proportion of which has to do with my country, which has the largest chunk, or, if you like, percentage of the world fleet in the bulk sector, is involved in the movement of bulk cargoes. These cargoes are essential commodities, i.e., stuff that the world needs and cannot do without. They are not luxuries; they are the energy, the raw materials, the grains, the phosphates. Therefore, a big part of shipping is, in essence, indispensable as there is no other way to transport these commodities. For us to maintain our current share in this, we have to be on good terms with the rest of the world. I need to repeat here something that has been said in the context of climate change. Europe cannot afford to be an inward looking region, solely a "port state" with a "fortress Europe" mentality. We cannot afford that. We will not be able to compete in the long run, because we need the cooperation, we need access to the markets around the world.

Going back to shipping finance, which is an additional problem in Europe as Europe has decided- and this is quite understandable - to apply the most rigorous and strict capital requirements and risk criteria on its banks, which, however, is not the case for Far Eastern banks or even banks in the United States, unless they choose to comply fully with the Basle rules. In our sector, we rely primarily on bank financing, because we are not in the capital markets as a rule. The largest sector in shipping, the bulk-tramp sector, comprises literally thousands of family companies around the world. They are private, and they rely on bank financing. We are now finding it very difficult to get bank financing in Europe or the West in general. So apart from building our ships in the Far East, we find ourselves increasingly obtaining financing in the Far East as well, and strategically going forward, I think this is not the best prospect or the best option for Europe.

The need for public debates and discussions in Brussels

I believe that one of the reasons why gatherings like this one are so useful is because we have few opportunities to have discussions with other maritime stakeholders, along with our regulators across the institutions in Europe, and explain to them certain things that they may not realize. As the Union of Greek Shipowners, we have produced a brochure which explains what the bulk-tramp sector is all about because it is off the radar and I think it is not right or wise for European citizens, for European rule-makers not to realize what this crucial sector is and what it has been doing for the last 100 years or more. Europe should initiate, and of course, we as shipowners, have the willingness to do so, but we all have to cooperate as well. We have to be in a cooperation mode rather than one of confrontation with the US and the Far East. According to the IMF, in 2030, 50% of the world's GDP is going to be produced by the BRICS' economies, that is, by 5 countries alone. And today, they account for almost 40% of the world population! I have been worrying about the fact that we are getting ahead of ourselves in terms of pointing the finger and preaching to the rest of the world. I think we have to be realistic, and without a doubt, we have to be in the forefront. Of course, technology will give us the competitive edge if we apply it correctly. But we also have to realize that we live in a global economy. As you know, the economy is global too, not just the climate. And to my mind, most of the trade wars today are nonsensical. If capital moves freely, allowing companies and people to invest in whatever they like, wherever they like - for instance we now build most of our ships in China, register them somewhere else, and crew them internationally, and this is happening across borders in all major industrial sectors - then how can we expect tariff wars to produce any cost benefit or really protect citizens locally?

Flag States and Port States

The EU shipping sector, which, as I have mentioned, is more than twice as large in terms of percentage of the world fleet as Europe's contribution to world trade, is established in Europe. This fact and not so much the flag is the most important feature. Of course, we need our seafarers because of the need to preserve the know-how and expertise, but shipping as such is linked to Europe through the establishment of the management and operating companies here. And we are a mobile industry. This has been demonstrated historically as well. So, we want to remain established in Europe, this is how the added value of our sector will be preserved, and that is again why we have to have a global perspective in Europe. The EU has to function much more as a flag state than it has done so far. We tend to be much heavier, if you like, and biased toward the port state function in Europe. We respect that, but we are also a flag state region par excellence, and we have to take that into consideration much more than we have done in the past, including as a first priority the preservation of the establishment of our shipping companies in Europe.

A united voice is much more potent than separate individual messages

In his exclusive interview to *Naftika Chronika*, Mr. Martin Dorsman, Secretary General of the European Community Shipowners' Associations, talks about ECSA's relations with other shipowners' associations in Europe, the new European Commission's climate change targets and how they affect shipping, as well as the different ways in which Northern and Southern Europeans perceive shipping.

What is the main goal of European Shipping Week? How supportive were the EU bodies in organizing the events?

The core purpose of ESW remains to reinforce the partnership with EU regulators such as Commission officials and members of the European Parliament. This year, an additional purpose is to inform the many new members of the EP and Commission officials new to shipping files about key shipping industry issues and to let them know what expertise exists and where it resides. This should be achieved through the Flagship Conference and via a carefully constructed series of targeted seminars and briefings and networking with the industry.

A second key objective is to promote a positive message about the shipping industry within the broader EU policymaking environment, drawing attention to the social, environmental, and economic importance of shipping to the EU.

What are the relations between ECSA and other Associations representing maritime interests in Europe? Do all these maritime and shipping organizations have somewhat conflicting interests and aspirations?

All the associations representing shipping and maritime interests recognize the importance of working closely together and finding common positions on policy files whenever possible. A united voice is much more potent than separate individual messages. All the associations express the importance of a unique maritime cluster in the EU, the strong interrelations between the different parts of the cluster, and the benefits the cluster brings and can bring to the EU economy, jobs, and growth. On specific files, opinions may not be aligned, but that does not impede the good relations between the associations.

How do you view the new Commission's vision to achieve carbon neutrality by 2050? Will the shipping industry face new challenges as a result of Commissioner Timmerman's mandate? Please elaborate further on the future of the ETS regime and ECSA's views on this policy.

ECSA published its contribution to the Green Deal during the ESW 2020. It is a well-known fact that, in general, ECSA prefers global regulation for shipping as it is a global industry. However, concrete proposals on including shipping in the EU ETS are not yet on the table, and in the coming months, ECSA will work constructively together with the EU regulators on this issue as well. The challenge is to make sure the EU is contributing to the ongoing process of the IMO, without making progress at the IMO more difficult.

All the associations representing shipping and maritime interests recognize the importance of working closely together.

Do you believe that Northern and Southern European ship-owners have different priorities in relation to European lobbying?

ECSA recently published its report on 2019 – 2024 strategic priorities. ECSA members are fully aligned on these priorities. Depending on the shipping market segments in which members of ECSA are primarily active, members can have a bigger interest in some issues than in others.

What is the social image of shipping in Europe today? Do Northern Europeans understand the importance of shipping as much as Southerners do?

ECSA recently published its 'Maritime growth plan for sustainable maritime jobs, growth, and competitiveness.' Generally speaking, the shipping industry became practically invisible, as ports moved out of many cities. For many European citizens, transport by sea is a given.
Many national shipowners' associations across Europe have developed specific actions to increase the visibility of shipping and to showcase the industry as an attractive job opportunity. ECSA's maritime growth plan builds on these national initiatives and strengthens them, by sharing best practices with other associations, as well as any other information that can contribute to the influx of youngsters into the seafarer profession and the maritime industry after their career on board a vessel. A precondition for this is to create a positive image of the shipping industry. National initiatives have shown that this is absolutely possible. ECSA and its members will increase their efforts on this.

Cooperation is key to face current and future challenges

In his exclusive interview to *Naftika Chronika*, Capt. Kimmo Lehto, Chairman of the European Tugowners Association, talks about the voice of the Association in Brussels and the prospects and challenges of the towage industry.

In the past two years, the European Tugowners Association has increased its lobbying budget. What was the main purpose of this increase, and how successful have the results been?

Actually, the lobbying budget of ETA has not changed in the last few years. Instead, ETA has invested in its Secretariat, which is now based in Brussels. By investing in our human resources, we also invest in the lobbying capability of our association. However, it is difficult to gauge the success in lobbying as this is something that bears fruit over time. What we can say is that ETA is now working more closely with other associations within the maritime sector that are Brussels based. ETA believes that by cooperating and working together within the maritime cluster, we see results. For example, ETA collaborates in the organisation of European Shipping Week; we are also part of the I AM platform as well as part of the Waterborne platform.

How well do the different tug owner associations in Europe collaborate when pursuing a common goal in Brussels? Are there different approaches and aspirations among your members?

ETA is the sole representative of the Tug Sector within Europe. On a national level, some countries have a national association for tug owners. ETA works closely with such associations and is in constant contact with them so as to update them on what is happening in Brussels and also get updates on what is going on at a local level. In the Brussels sphere, ETA works closely with other maritime associations. Through this collaboration, we reach our common goals. Whereas the members of ETA are diverse both in size and area in which they operate, we often find common ground on the way forward regarding European or international matters. ETA members believe that a common consolidated approach of all the members within the association is beneficial to our lobbying efforts.

A common challenge for most tug owners is their aging fleets. How competitive can the European fleets remain in the coming years without state or European subsidies?

The main challenge to the European fleet is not necessarily the age of the fleet, but potentially the requirements of the

Mylaki Shipping Agency Ltd

Ship Agency • Ship-to-Ship Transfers • Protecting Agency • Canal and Straits Transits
Electronic Customs Clearances • Ship Supply • Husbandry Services • Ship Lay-Up
Change of Management / Ownership • Technical Support • Ship Repairs

43, Iroon Polytechniou Ave.
185 35 Piraeus, Greece
T: +30 210 422 3355
F: +30 210 422 3356
ops@mylakiltd.gr
www.mylakiltd.gr

Greece

Ag. Theodoroi: 1, Spirou Meleti St., 200 03 Ag. Theodoroi
T: +30 27410 62301 / F: +30 210 422 3356

Alexandroupolis: 6, M. Botsari St., 681 00 Alexandroupolis
T: +30 21670 05952 / F: +30 2310 223932

Aliveri (Mylaki Port): 18, A. Nika St., 345 00 Aliveri
T: +30 22230 23692 / F: +30 22230 23789

Chalkis: 10-12, Voudouri Ave., 341 00 Chalkis
T: +30 22210 74810 / F: +30 22210 76760

Eleusis: 19, Kanellopoulou St., 192 00 Eleusis
T: +30 210 556 1654 / F: +30 210 556 1655

Kavala: 1, Er. Stavrou St., 654 03 Kavala
T: +30 2310 230577 / F: +30 2310 240391

Lavrion: Lavriou Sq., 195 00 Lavrion
T: +30 21670 05953 / F: +30 210 422 8096

Patras: 124, Ag. Andrea St., 262 21 Patras
T: +30 2610 422102 / F: +30 2610 434297

Thessaloniki: 7, Karatasou St., 546 26 Thessaloniki
T: +30 2310 283375 / F: +30 2310 223932

Volos: 32, Argonafton St., 382 21 Volos
T: +30 24210 23496, / F: +30 24210 39361

Yali (Island): Yali-Nissiros, 853 03 Dodecanese
T: +30 22420 92086 / F: +30 22420 92086

Cyprus

38, Spyrou Kyprianou St., 4042 Germasogeia, Limassol
T: +357 25 833300 / F: +357 25 833301

Besides the ports/locations that we cover via our offices appearing on the relevant list, Mylaki Shipping Agency covers all Greek and Cypriot ports through our local correspondence.

ports and clients for different types of tugs, most of the time requiring stronger and more powerful tugs. Another consideration is legislative aspects in terms of decarbonisation. Obviously, each country has its own particularities. For example, the average age of a tug in Greece is 32 years, which compares quite differently to tugs in Italy, where, according to the study carried out by ETA in 2019, the average age is 18 years. In general, our members are not supported by state aid. Whilst state aid could be a solution for upgrading the fleet of tugs, there are other options worth considering — for example, having legal certainty for early movers who invest in innovative and/or greener tugs, mobilizing funding for research and dissemination of innovative solutions, and ensuring a neutral approach when supporting innovation. In general, it is worth noting that the ETA members invest in keeping their fleet updated. It is also important to point out that since 2010, the average annual investment in tugs by tug owners in Europe equals €311 million.

Will the Northern Passage be a new area of opportunities for European tug owners? Can Russia be pressured to re-examine its cabotage rights?

Russia is an independent state with its internal rules and regulations, and ETA is an association without political interest. Nonetheless, we will naturally follow what happens in Russia in the future. The Northern Passage won't increase harbour towage possibilities for our members if the passage is used by ships not entering Russian ports. At the moment, it also looks like in the future, all the natural resources from Northern Russia are to be transported by Russian flagged vessels. It also seems that all the harbour towage operations in Russia will continue to be done by Russian flagged tugs, as is done now.

ETA believes that by cooperating and working together within the maritime cluster, we see results.

Safety is a major concern for most operators in your market. In which ways can/ will you collaborate more with P&I Clubs and educational establishments in order to better assess and inform mariners of how to best protect themselves when operating/ sailing in challenging conditions?

Safety is indeed our business. ETA collaborates successfully with P&I clubs, some of which are also associate members within ETA. Although ETA has not been directly involved with educational establishments, our members in different countries are actively engaged with Maritime Schools. Members of ETA communicate closely with Maritime Schools in Europe, and our members have regular simulator training with Tugmasters, Captains of assisted or escorted vessels, and Pilots in Maritime schools in Europe. Our members also offer apprenticeships for students of Maritime schools in Europe so that the students also learn what happens at the other end of the tow line. One of our main goals is to collaborate with other associations to improve safety. One such example is a recent project that ETA carried out with EMPA (European Maritime Pilots Association), the result of which was a short video on safe towage operations in harbours. This video helps all the players (Captains of assisted vessels, Pilots, Tug Masters, and Linesmen ashore) to understand the importance of clear communication and planning of the operation. By communicating and planning the harbour towage operations in a similar way in all European ports, the safety and efficiency of mooring and unmooring operations will certainly be increased.

In which ways has EMSA called attention to the uncertainty caused in the European towage industry after the UK' s withdrawal from the EU? What lies ahead?

ETA has been following and will continue to follow Brexit and its impact on towage in the UK and Europe. However, towage should not be considered separately, as towage is a vital link in the maritime transport logistics chain. It is important to remember that towage is part of the services that a port provides to its clients, and as long as ships visit the ports in the UK, towage will continue.

How does ETA react to the growing consolidation and formation of alliances in the shipping (container) industry? Will consolidation be the only secure future for tug owners as well?

We have been seeing consolidation and alliances in the container industry for quite some time. ETA members have adjusted to this reality. The main concern of ETA is that these alliances start doing joint procurement for port services, and therefore for towage. This is not yet widespread in Europe, but there is a possibility that it will happen. This could have a severe effect on our members and would drive prices even lower, to levels that would be unsustainable. In fact, ETA has been insisting that a proper evaluation and review of the Consortia Block Exemption Regulation needs to be done. ETA has submitted its position in a consultation in December 2018 and also in December 2019. ETA is now cooperating with Feport, Clecat, and ESC in putting forward a common position and a legal argument as to why the CBER should not be automatically renewed. During the last few years, we have also seen consolidation within the tug sector. However, the future may not necessarily mean consolidation. What is certain is that cooperation within the sector is key to face current and future challenges. The current changes in the maritime industry that also affect the towage sector give ETA greater relevance and importance. Today the main aim of ETA is to be the voice of the European towage industry, to foster safety values and the protection of the environment as well as to promote the interests and respond to the needs of its members.

Στο ξεκίνημα 1975

Σημαία: Ελληνική
Μήκος: 79 μέτρα
Πλάτος: 11,7 μέτρα
Ιπποδύναμη: 1.500 ίπποι
Ταχύτητα: 12 κόμβοι
• *1.500 Τόνοι*

1985

Σημαία: Ελληνική
Μήκος: 157 μέτρα
Πλάτος: 25 μέτρα
Ιπποδύναμη: 12.000 ίπποι
Ταχύτητα: 18 κόμβοι
• *956 Εμπορευματοκιβώτια*

Ένα από τα 6 αδελφά πλοία

2000

Σημαία: Ελληνική
Μήκος: 304 μέτρα
Πλάτος: 40 μέτρα
Ιπποδύναμη: 78.000 ίπποι
Ταχύτητα: 25,6 κόμβοι
• *6.420 Εμπορευματοκιβώτια*

Ένα από τα 8 αδελφά πλοία

2006

Σημαία: Ελληνική
Μήκος: 351 μέτρα
Πλάτος: 43 μέτρα
Ιπποδύναμη: 102.000 ίπποι
Ταχύτητα: 25,5 κόμβοι
• *9.500 Εμπορευματοκιβώτια*

Ένα από τα 5 αδελφά πλοία

2013

Σημαία: Μάλτας
Μήκος: 300 μέτρα
Πλάτος: 48 μέτρα
Ιπποδύναμη: 64.505 ίπποι
Ταχύτητα: 22,5 κόμβοι
• *8.827 Εμπορευματοκιβώτια*

Ένα από τα 7 αδελφά πλοία

Σήμερα

Σημαία: Μάλτας
Μήκος: 369 μέτρα
Πλάτος: 51 μέτρα
Ιπποδύναμη: 66.893 ίπποι
Ταχύτητα: 23,0 κόμβοι
• *14.524 Εμπορευματοκιβώτια*

Ένα από τα 5 αδελφά πλοία

COSTAMARE SHIPPING COMPANY S.A.

Ξεκίνησε από ναυτικό, την εξέλιξη και την προκοπή της
την οφείλει στους συνεργάτες της έλληνες ναυτικούς,
στη θάλασσα και στη στεριά.

Είναι η εταιρεία που αυτό δεν το ξέχασε ποτέ και
το αποδεικνύει με τις ενέργειές της.
Πάντα χρειαζόμαστε ικανούς νέους συνεργάτες
για να συνεχίσουμε
μαζί το έργο των παλαιοτέρων.

Εάν ενδιαφέρεστε να είστε ένας από αυτούς,
επικοινωνήστε μαζί μας στο τηλέφωνο 210 94.90.180 ή
στείλτε το βιογραφικό σας στο Fax: 210 94.09.051-2,
στο e-mail: info@costamare.com,
στη διεύθυνση: Ζεφύρου 60 & Λ. Συγγρού, 175 64 Π. Φάληρο, Αθήνα.

Shipping and the Environment: the need for a global perspective

By Dr. **Kostas G. Gkonis,**
Secretary General of INTERCARGO

On 20 February 2020, I had the chance, along with many distinguished speakers, to participate on behalf of INTERCARGO in the "Shipping and the Environment Panel Discussion" during the Flagship conference of the European Shipping Week. Being invited to this important event was an honour but also a great opportunity for our Association to continue our dialogue with our European counterparts and to seek further dialogue with officials from the European establishment.

This dialogue is particularly necessary when it comes to the reduction of Greenhouse Gas (GHG) emissions, as it is evident that the thinking of European decision-makers is distanced from the global dimensions of our sector, whereas at the same time, they aspire to play a leading global role. The fact that Europe is becoming a global leader in innovation is more than welcome, but its becoming a global leader in regulation should rather worry us as, for one thing, such regulation would lack the fundamental characteristic of being global. In that respect, while the key word is

Serving the world seaborne trade since 1948 and for many years to come

MDM MARAN DRY MANAGEMENT INC.

Where Tradition meets Innovation in Harmony

216-226 DOIRANIS STR., KALLITHEA, ATHENS 176 74, GREECE TEL: +30 213 0076100 - FAX: +30 213 0076229 - email: crew@marandry.com

collaboration with European, or any other regional, decision-makers, we cannot but keep reminding them that global challenges and problems require global handling and solutions: the International Maritime Organization (IMO) is the way when it comes to regulation, as indeed a global level playing field is shipping's way.

INTERCARGO has participated in IMO's GHG-related deliberations before, during, and after the adoption of its so-called initial strategy in 2018. However, one should not forget that this strategy was not the starting point. For one thing, since 2011, the IMO has adopted technical and operational measures that have been successfully implemented for GHG emissions reduction. Over the past decades, shipping and, more specifically, the bulk/ tramp sector has achieved an exceptional track record when it comes to environmental performance and energy efficiency, which significantly outperform all other transport modes. The IMO's initial strategy, which encompasses short, medium, and long-term measures, is an ambitious plan that enjoys our full support. In contrast, we cannot resort to European or other regional regulations in order to find the solutions needed by our global industry: they have proven ineffective as they create distortions and multi-tier markets.

Outside of electronics, no sector has achieved rates of productivity growth similar to the energy efficiency improvement we are expecting from shipping in the coming few decades.

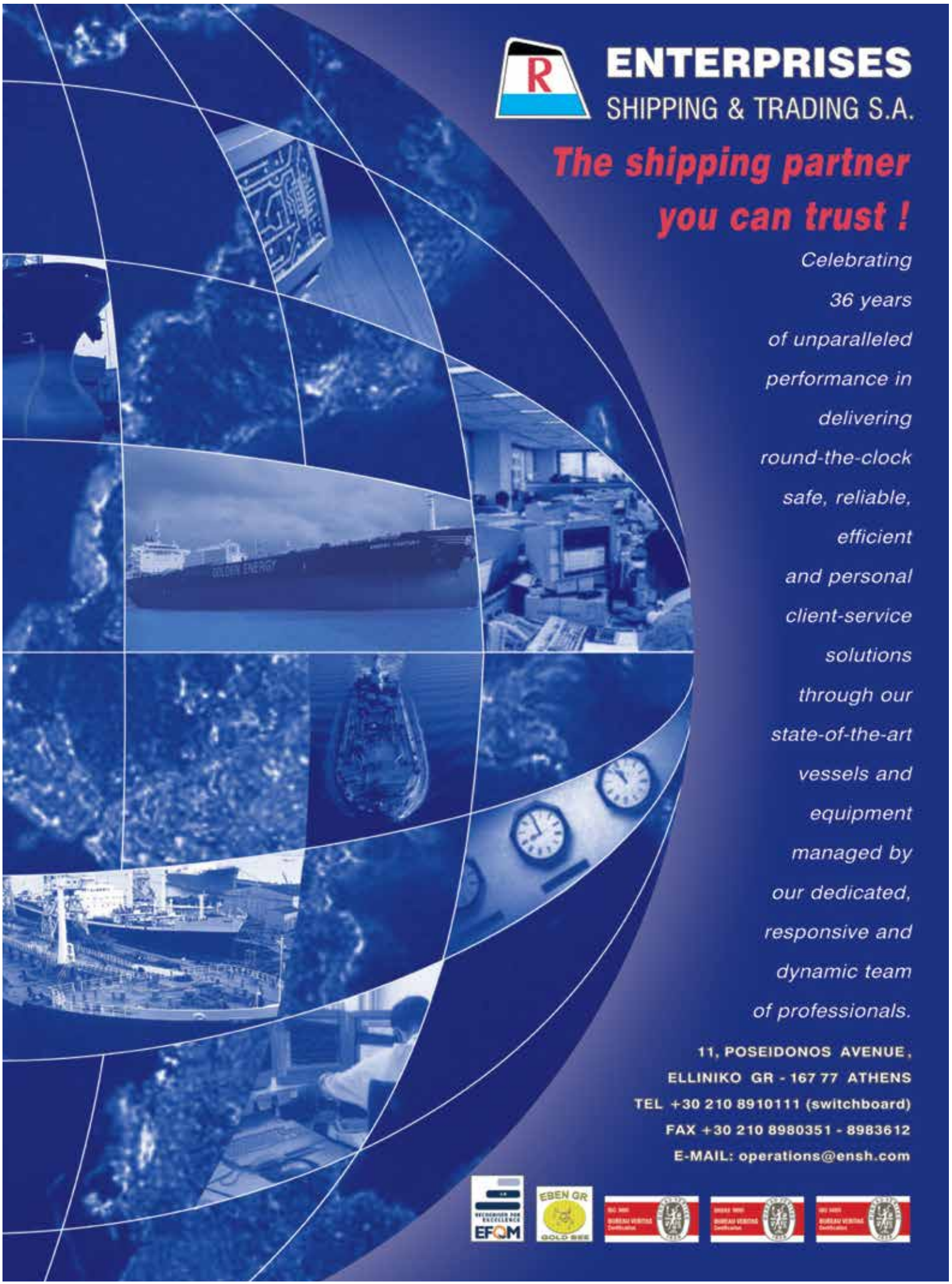
The efficiency of international shipping is largely due to economies of scale and the efficiency offered by bulk carriers. We need to assure a global level playing field, but we also need to respect shipping's business model, which has been optimised and tested over time. If one decides to disrupt it, one should be ready to assume the responsibility that goes with that. The value system of bulk shipping is pretty much aligned with the UN sustainable development goals: no poverty, zero hunger, good health and well-being, affordable and clean energy, economic growth, supporting industry, innovation, and infrastructure, next to climate action of course.

Like any business, cargo interests optimise costs-benefits and adapt to supply-demand: they mostly pass any additional costs through the value chain down to the consumer. In our sector, which offers an economical (low-cost) transport service, this would impact raw materials, services and goods meeting basic, non luxury needs (main and minor dry bulks include cereals, grains, agricultural and forest products, as well as iron and other mineral ores, coal and fertilisers, and other raw goods). There is no free lunch, and our society and policy decision-makers should take their share of responsibility as economies would falter, and populations would face shortages without a healthy and efficient dry bulk cargo sector.

The propulsion of bulk carriers, which are the workhorses of international shipping, currently relies on fossil fuels. Our sector is a very competitive one, and there is no room for late comers: every technological innovation is widely adopted, and operational efficiency is optimised to the bone. The challenge to decarbonise shipping is enormous, as many solutions are being investigated, but none are as yet at an implementation phase and scale that can serve the needs of oceangoing shipping. The year 2050 (IMO's landmark for a 50% reduction in GHG emissions) is only 30 years ahead, and this time frame compares to the average 20-25-year lifespan of a ship. Outside of electronics, no sector has achieved rates of productivity growth similar to the energy efficiency improvement we are expecting from shipping in the coming few decades.

The IMO will be translating its objectives into practical measures. From our side, shipowners wish they could have decarbonised our sector 'yesterday'; however, this much easier said than done and is not possible to achieve on their own. Still, shipowners are responding responsibly to the challenge by putting forward the R&D fund proposal, not as a short-term measure, but as a much-needed longer-term complementary contribution to set in motion the chain of innovation, investment, production, and adoption of innovative technologies and energy carriers by the marketplace. However, the industry needs fuel/energy suppliers, engine manufacturers, shipbuilders, and charterers aboard to achieve the IMO's objectives, and getting these key stakeholders aboard is arguably the IMO's greatest challenge.

Several of the above points I had the opportunity to reiterate as panellist at "Shipping 2020: Revisiting the role of shipping in international prosperity" during the Isalos.net conference in London on February 26. I sincerely thank the Naftika Chronika team for their hospitality.



ENTERPRISES
SHIPPING & TRADING S.A.

The shipping partner you can trust !

Celebrating 36 years of unparalleled performance in delivering round-the-clock safe, reliable, efficient and personal client-service solutions through our state-of-the-art vessels and equipment managed by our dedicated, responsive and dynamic team of professionals.

11, POSEIDONOS AVENUE,
ELLINIKO GR - 167 77 ATHENS
TEL +30 210 8910111 (switchboard)
FAX +30 210 8980351 - 8983612
E-MAIL: operations@ensh.com

Today's CEO primarily relies on his ability to understand the constant change required to stay on top

Frank Coles, Chief Executive Officer, Wallem Group, talks to *Naftika Chronika* about autonomous vessels, trade developments in the developing world, the reluctancy of traditional family-run shipping companies towards third party ship management, the skills of a competent CEO, and of course… Generation Z in the shipping industry!

Frank Coles,
Chief Executive Officer, Wallem Group
Interviewed by **Charis Pappas**

It does not make sense to remove human resources completely because the monitoring and backup gained from humans far outweigh the costs.

New technologies are probably the most valuable asset for shipping companies to attract young and talented mariners. Do you believe that Generation Z is more interested in cutting edge technologies than in the fascinating aspects of the maritime profession that used to attract previous generations?

The younger generation believes that work must have a purpose associated with the world around it. It should be interesting, but also socially responsible and connected to the world in an environmentally friendly way. Technology is also essential for two main reasons. Firstly, it makes work more efficient and secondly young people have grown up using it and see its benefits. For them, the romance of the maritime profession has no meaning unless it embraces technology to make work more efficient and is linked to social and environmental causes.

Autonomous vessels were a midsummer night's dream a few years ago, yet today we see a lot of breakthrough projects. Do you believe that in the years to come, we will see fewer and fewer mariners onboard vessels? What does this prospect signify for today's maritime education?

It is probably inevitable that we will see fewer people on ships as we develop better methods of automation and monitoring from ashore. However, there is much to be done in terms of technological advancements, environmental responsibility, and risk reduction before this becomes a reality. It does not make sense to remove human resources completely because the monitoring and backup gained from humans far outweigh the costs. Training will become more critical, more complex, and more technologically focused.

How is Wallem monitoring trade developments in the developing world, especially in Africa and the Indian subcontinent? Have your new strategic goals changed in view of the developments in those areas?

Wallem is a ship solutions company, and our ship management and agency businesses serve our customers wherever they trade. As such, we are not directly impacted by the changes in Africa and India.

It is well known that traditional, family-run ship owning companies, especially in the Mediterranean Sea, are somewhat reluctant towards third party ship management. Do you believe that this long-standing attitude is changing?

I believe this will change because the model of ship ownership is changing, and the complexity of staying on top is becoming harder to accomplish by smaller family-run operations.

The dry market has been suffering for quite some time, and most analysts are not optimistic about the near future. How do you respond to these predictions, and what cost-cutting and diversification strategies have you initiated?

The conditions in the dry market only reinforce the need for a more efficient model that focuses on advanced management techniques and proper performance analytics to manage ships in the most efficient manner. Our strategies are directly focused on using technology to manage the ship more efficiently.

From a cutting-edge technology provider to a third-party ship management company, what skills does a competent CEO require to succeed?

Today's CEO primarily relies on his ability to understand the constant change required to stay on top. This is a mix of processes, people, technology, and the knowledge on how to blend these correctly. Technology is only a tool, but it is the tool of the future, even for ship management.

MGO | Cooling Units

- **High Performance**
- **Trouble Free**
- **Simplified**
- **Compact**
- **Reliable**

Due to the imminent change in regulations for lower Sulphur emission we present you the most reliable solution

Our brand new standardized MGO Cooling Units.

Available in a wide range of MGO Flow that covers all Vessel needs

Advantages

- Easy, fast, trouble free instalation
- Suitable for operation under heavy marine conditions
- All-in-One Unit, ready for connection on fuel line and power supply
- Design and construction approved by all leading Classification Societies
- Minimal footprint due to sophisticated compact design
- Suitable for new buildings and retrofit
- Over than 150 succesful installations of MGO Cooling Units and stand-alone MGO Coolers
- Technical Achievement Award by Lloyd's List

ABS TYPE APPROVED PRODUCT

40 YEARS 1979 2019 FARAD HEAT EXCHANGERS ANNIVERSARY

Lloyd's List 2018 GREEK SHIPPING AWARDS TECHNICAL ACHIEVEMENT Award

FARAD

HEAT EXCHANGERS

...we work on quality

- Turbo-charged Air Coolers
- Steam-Dump Condensers
- Marine Gas Oil (MGO) Cooling Units
- Heaters
- Fresh Water Generator
- Electric Heaters
- Oil Coolers
- Water Coolers
- Freon Evaporators and Condensers

14, Alon Str. 185 40 Piraeus, Greece
Tel.: +30 210 4227 410, Fax: +30 210 4227 303
e-mail: info@farad.gr, www.farad.gr

MANUFACTURING SINCE 1979


FURUNO

Smart Shipping

The entire shipping industry has had to drastically adjust to recent policy developments pertaining to climate change and the protection of the marine environment. The social overemphasis and subsequent quest for constant evolution in state-of-the-art technology have also triggered many discussions on the shape of things to come in this industry, which in the eyes of the younger generations up until recently seemed technologically static.

The ever-precipitating alterations in the shipping landscape inevitably call for modernization, which comes in the form of "smart shipping," a means of revolutionizing shipping by ensuring safer, more practical, economical and environmentally friendly operations.

With the IMO 2020 legislation already in effect and the future of semiautonomous ships looming large, we asked distinguished members of the Greek shipping industry with experience in ship management and maritime operations for their views on what constitutes "smart-shipping" and about the different parameters that reinforce this trend.

Edited by
Charis Pappas

Too much commotion about smart shipping

By **Christos Hadjigeorgiou**,
Managing Director, Almi Marine Management SA

When asked to comment on smart shipping, the first thought that crossed my mind was: "Smart for whom?"

Shipping has always been a business where trust is not taken for granted, and quite often, when trust is given, it may be exploited to the detriment of the entity giving out this trust.

You may be familiar with companies that offer the possibility to "transfer" the AMMS (Alarm and Monitoring System) console to the office and provide almost real-time monitoring of the operation of the engine room equipment. Although this is great, something fancy to show friends or impress others, are we not forgetting that Hull & Machinery Insurance policies basically only cover crew negligence? So, if the manager is aware of a situation, is the cover compromised?

If this happens, then a "smart" idea may not be so smart after all.

We, therefore, need to be cautious with the definition of "smart." It should be smart for the company, not something to show around.

A second thought then crossed my mind: "What is smart?"

I believe that "smart" should focus on information and not data. Looking at a ship, even a very modern one, what we see is very many equipment that produces data, but does not communicate with other equipment and does not give out information in a standardized way. Take ECDIS for example. Our company was one of the first to install an ECDIS on newbuildings ordered back in 2007. Not only we had to practically replace the first generation ECDIS so that it would comply with the amended regulations, but even now, training has to be model specific since after all these years IMO cannot agree/enforce one standard interface.

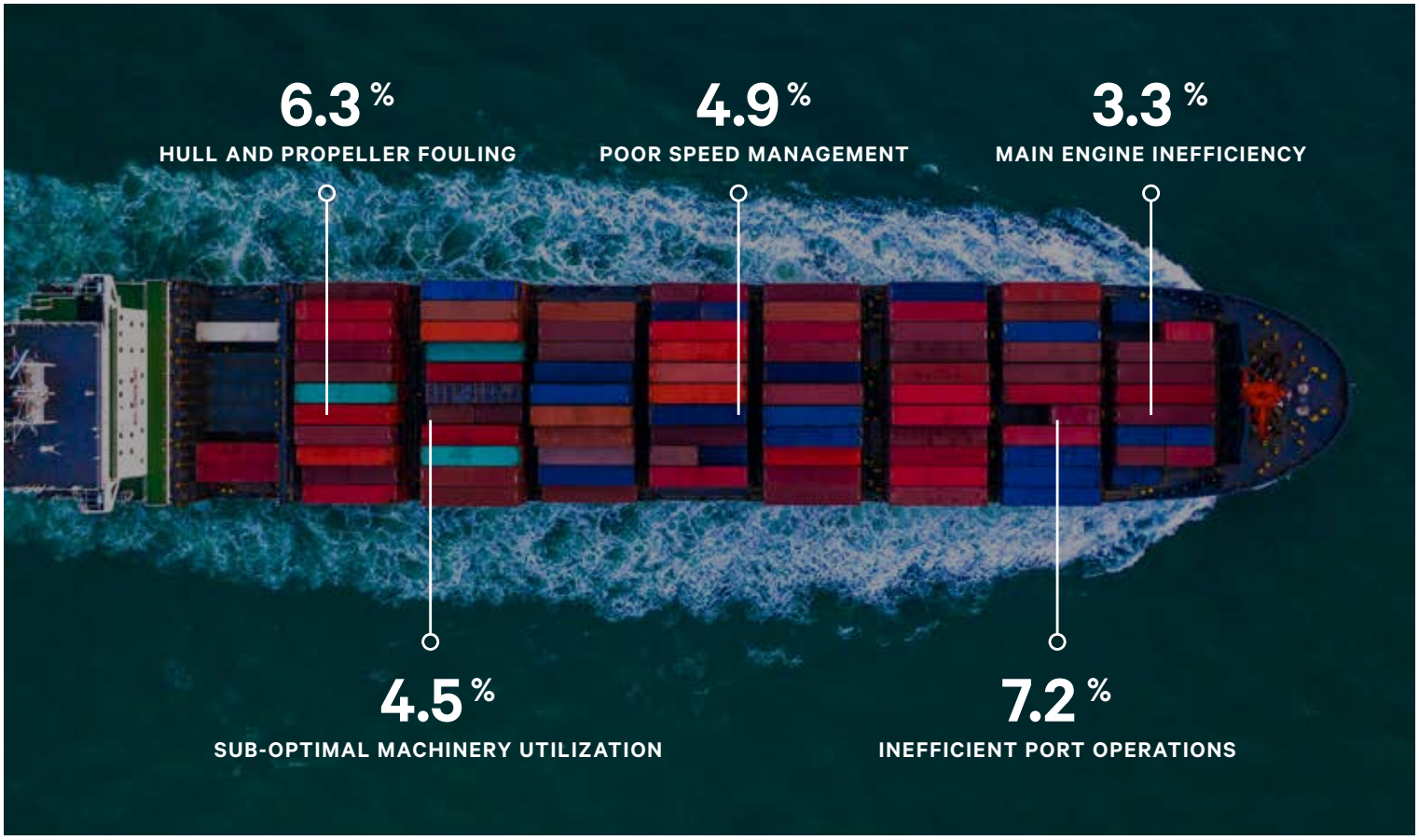
Therefore, as a first step, "smart" should mean a way to collect data from a multitude of sources and produce useful information that is readily understandable and of value to crew and companies alike.

Maybe it is high time a Ship Operating System (SOP) was created or Windows, or any equivalent, was adopted, and compliance of all shipboard equipment to that system was made mandatory.

All in all, I believe that there is too much commotion about smart shipping with relatively little understanding of what we really mean by this term.

This complexity also poses significant challenges to crews and office staff who will be required to familiarize themselves and use new "smart" technology. The burden is immense, especially for crews, as it is very likely that even if similar systems exist across different ships, different interfaces will require extensive re-training.

What we see as the opportunity of the advent of "smart" technology is a "smarter" way of doing things. This means being able to enter and validate data only once and then use this data to produce useful information in an effort to minimize the amount of overhead and bureaucracy.



Your data is talking. Are you listening?

Do more with your data using Tres Vessel Analytics.

Tres is a leading maritime software and analytics company, providing digital vessel performance solutions that help clients reduce fuel consumption, minimize emissions and improve operations. Our core Tres Vessel Analytics (TVA) platform is the fastest growing performance management and optimization system in the market and is deployed on nearly 300 vessels worldwide.

Tres is different because we focus on impact. Our "savings as a service" approach helps identify and prioritize solutions unique to each client and ship. By combining high quality data and decades of domain knowledge from ship operations, we are able to identify performance gaps with confidence and leverage our advanced analytics platform to provide relevant insights for technical, operational and commercial decision-makers.

tressolutions.com

connect@tressolutions.com

Smart Shipping – Challenges and Opportunities

By **Spyros Vlassopoulos**,
Managing Director, Ionic Shipping (Mgt) Inc.

Ionic Shipping (Mgt) Inc. has always been committed to service excellence with tanker-management standards applied to the management of both the "wet" and "dry" fleets throughout its organization.

Given that the average age of Ionic's fleet is under 6 years old, the company is thankfully well- prepared for all the new regulations that have and will come in force. Additionally, engagement in active research into the next generation of environmentally friendly engines and designs has been ongoing, while the company's in-house publications aim to capture Ionic's social conscience and sense of responsibility and how these are received by a wider audience beyond shipping.

Meanwhile, Ionic is well aware of "Smart shipping" being a constant theme in shipping today with digitalization already making a great impact on the industry. The internet of things is the evolution of the World Wide Web towards a network where everyday objects are connected to the internet.

Indeed, we truly believe it's only a matter of time before our ships become smart ships, autonomous or otherwise.

Technologies like smart paints will revolutionize shipping by allowing us to understand, in real-time, how the ship is responding to internal and external stresses. Combined with other technologies, all the information collected will lead to better decision making and enhanced performance, productivity, and safety.

Maintenance, moreover, will no doubt prove easier as we move away from fixed interval checks to proactive, tailored maintenance, thus saving both lives and money. Lessons learned from the data collected during maritime incidents also have the potential to revolutionize the design and construction of new ships.

Meanwhile, education is perhaps the biggest factor influencing the successful introduction of smart ships. Ensuring that the next generation of seafarers have the necessary skills will play a key role. It will all depend on how we treat, interpret, and use collected data.

Although all this is easier said than done, it is undoubtedly only a matter of time before such radical changes become a reality.

Marine Technical Experts

Ships Repairs, Workshop & Spare Parts

VARIETY OF SERVICES WITH TOP QUALITY AND EFFICIENCY

- Diesel Generators Overhauling
- Main Engines Overhauling
- Steam Turbines
- Engine Machinery
- Deck Machinery

...op Services

- Chris Marine LDM service
- Chris Marine HONX honing service
- Spare Parts

YOUR TRUSTED PARTNERS ROUND THE CLOCK AROUND THE WORLD

ISO 9001 BUREAU VERITAS Certification

ISO 14001 BUREAU VERITAS Certification

OHSAS 18001 BUREAU VERITAS Certification

www.marine-experts.gr

GREECE-WORKSHOP & OFFICE: *info@marine-experts.gr*
Adrianou 7, Piraeus, 18540, Greece
tel:+30 210 9845780, fax:+30 210 9845783

CYPRUS-OFFICE: *info@marine-experts.com.cy*
2 Vasileos Konstantinou Street. Africa Court 1, Office 52,
3075, Limassol, Cyprus. tel: +357 25106589,

Reexamining the human element in the age of smart shipping

By **Katerina Skourtanioti**,
Managing Director, VENLYS Maritime Specialisation Services

Despite the technological advances in terms of systems and operations, our industry is facing an increasing shortage of adequately qualified and experienced seafarers who will help to steer shipping towards a sustainable course.

One of the key challenges we are currently facing is the need to ensure that seafarers are properly trained and skilled to cope with the rapid evolution of technology and the constant presence of commercial developments and procedures. All these changes create the need to focus on the human capital (seafarers) and, therefore, to improve their adaptability to sustain and cope with the continuously evolving environment of our industry.

MENTOR, the European funded project in which the National Technical University of Athens (NTUA) participates as a partner, has studied and mapped the current and future (technical and non-technical) skills required for crew members; skills like leadership to design mindset or electronics and robotics emerged, amongst others.

It was only recently that the significance of human performance was introduced in the safety framework of the maritime industry; this means that the industry is entering the new era of Safety-II, which focuses more on the human element and the variability of human performance than merely on studying what went wrong. Hence, human performance-related skills and characteristics are expected to come more and more into the picture.

Moreover, the next generations of seafarers will probably be the first to have to deal with increased levels of on-board autonomy, and in some cases, perhaps with fully automated or autonomous systems. The ability of seafarers to interface with complicated and highly advanced systems, their situational awareness as well as their adaptability, will be some of the skills that will profoundly affect human performance on-board (future) ships.

HUMAN PERFORMANCE is and will be the big wager of the future; otherwise, the development of technology will be an empty promise without the expected results. We can say that in order to have smart shipping, the industry will require smart people, i.e., seafarers who have the skills to check, understand, interface and perform effectively with automation systems and advanced procedures (under known and unknown conditions). These will be the skills of the future!

Seaven

43, Iroon Polytechniou Ave.,185 35 Piraeus, Greece
Tel: +30 210 422 8085 / Fax: +30 210 422 8076
E-mail: tankerops@seaven.gr / dryops@seaven.gr

www.seaven.gr

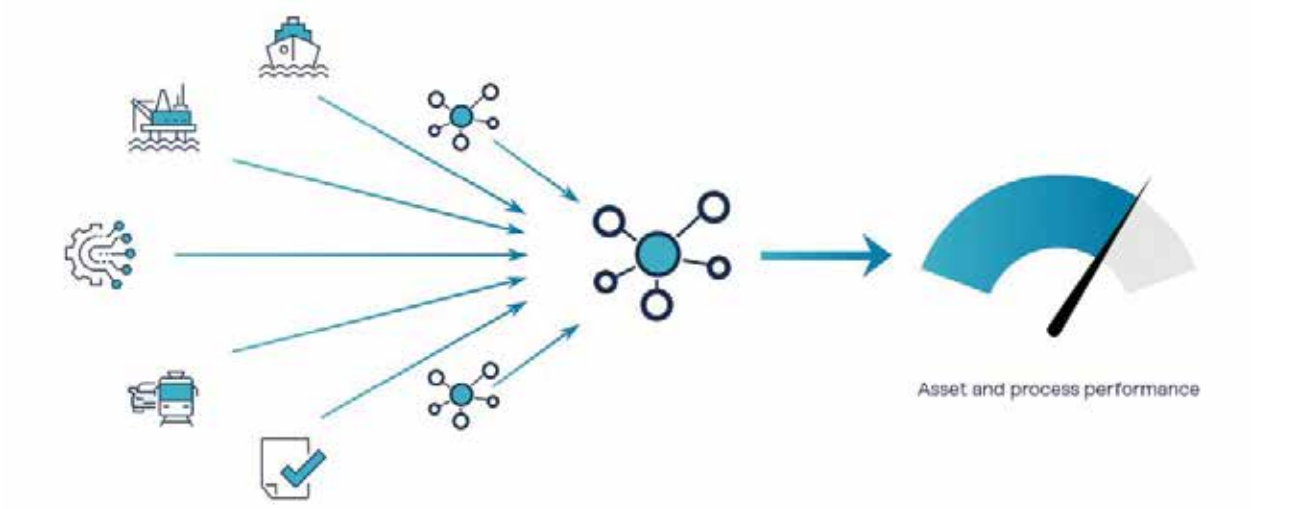
Smart Ship: Revolution or Evolution?

By **Dimitris Zisimopoulos**, Marine Business Development Manager Southern Europe & Africa Area at RINA

Traditional industries are increasingly using data-driven technologies. Shipping, which has always trailed behind other more innovative industries such as the aviation and power generation industries, is embracing monitoring the performance of vessels by applying smart technology and advanced data analytics.

The maritime industry has realized that the key to its survival lies in keeping up with new developments and ways to modernize operations. Still, their adoption takes time and certainly requires the right mindset. Scientific terms like Big Data and IoT (Internet of Things) are becoming a reality within shipping companies. However, the actual value lies neither in the collection of Big Data nor in their transfer ashore. Real value is created through the ways in which data are analyzed, and the reliable answers given to problems. Hence, to start gaining value from Big Data, they must be transformed into Smart Data: simulation models, machine learning algorithms, and data analytics. When this level is reached, the operator really gets a return on investment and sees the actual advantage of it.

But how does one gather all the different kinds of data from various sources, analyze them in real-time, and obtain a clear outcome customized to the operator's needs? RINA's answer is RINACube, a platform that uses software that can assess the energy efficiency of a vessel and support operational decisions to improve it. It can also compare sister vessels' performance or the same vessel in two different periods (i.e., before and after a dry dock). It is modular and highly configurable, collecting real-time data from automation and other systems such as scrubbers, navigation, and the alarm monitoring system of the ship. Furthermore, data are also enriched with external information (i.e., meteo-marine data, AIS



data, nautical charts) in order to give a clear and complete picture of the operational and fuel performance of the fleet. The output is also customizable from the perspective of how the information is aggregated, compared, visualized, and the alerts can be activated.

The RINACube platform is a user-friendly solution. It provides our customers with a holistic view of their businesses. We had foreseen from the very beginning that there was a need for a wider approach to the digital transformation within the shipping community. Our customers were not interested only in engine performance: they were also interested in ways of gathering the maximum amount of data covering the largest portion of their operations, such as increasing energy efficiency; environmental protection and procedures; monitoring ships and relevant KPIs; setting alerts in order to become aware of inefficiencies and to try optimize the fleet operations; increasing safety and facilitating compliance. RINACube matches the core applications of a classification society and added value services.

Technology, however, is not the only matter, even though it claims the lion's share. Challenges lie in many aspects of an operator's work. It is something bigger, which requires the transformation of the shipping industry. It is a new work model and culture. Technology, digital transformation, and data collection are the biggest challenges that shipping will have to face in the next years. These new trends and challenges do not affect only technical departments or ship operators. They impact several departments within shipping companies. Operations, chartering, energy, HSQE, and even crewing departments are increasingly being affected by digital transformation. We have realized through our customers that the primary value our digital products can offer them is this change of culture and mindset of both onboard and ashore personnel.

As is self-evident, the human factor is an indispensable part of this new era. Digital tools are made to support competent employees and are not designed to reduce the manpower, or the number of persons needed for a shipping company's operations. The main goal is to enhance and help people make better decisions based on the additional data available. Without skillful employees, none of these state-of-the-art systems can provide the added value for which they were created.

So far, it has not been possible to determine to what extent and how fast shipping will be fully digitized. One thing is certain. It is not about "whether" it will happen, but about "when" it will happen. The obvious advantages and benefits of digitization outweigh any voices against it. Its benefits cover all the supply chain players from cargo owners, charterers, seafarers, ship owners, all the way to the end customers of the transported goods.

In light of the above, the question about whether smart shipping is a revolution or evolution is not THE real question. Smart shipping has tremendous potential. It is up to those who understand and know the industry to embrace it.

Smart ships from a training perspective

By **Dr. Antonis Frigas**,
General Manager and VC of BoD, SQLearn

Smart ships are already a reality, and it is up to software developers to properly connect the dots of the big data that are assembled and provide correlations that will actually help shipping companies' management to make decisions based on facts and emerging patterns.

As a company that focuses on e-learning, SQLearn already provides a Learning Management System ashore and onboard that helps shipping companies to run their training matrix-based curricula.

Course enrollments to the various ranks abide to specific training needs as those required by the company's SMS. However, the need for fleet-wide course refreshers or mandatory re-enrollments might arise due to incidents or special circumstances. With the new reality brought by the data assembled from smart ships, training has a whole new field opening up. Analysis from the gathered data can bring to light vessel-specific or fleet-wide training needs. The e-learning system can be automatically triggered to make the necessary course enrollments to remedy the root cause of those data-backed abnormalities. Specialized e-learning courses can ensure quality, continuous training on the setup, use, and understanding of the data gathered by smart ships.

SQLearn is already working on similar algorithms that analyze the effectiveness of training by measuring its impact on incidents related to specific training needs. Thus, the e-learning system over time assigns each training with an effectiveness variable, a KPI that can be used to assess training efficiency and provide feedback that can be used for TMSA 3 audits.

Furthermore, as with any technological advancement, addressing the human factor will always be the most critical aspect of successful implementation, particularly in the maritime industry, where human error is the reason for most maritime accidents. By using SQLearn's interactive courses with multimedia material, the trainees can easily comprehend the topic at hand, perform self-assessment tests, and finally test their knowledge on the topic through a final assessment. At the same time, everyone involved in the management of the training process can easily monitor training activities in real-time and make adjustments as needed since SQLearn's e-learning system establishes a real-time connection with the vessels. A successfully implemented training program leads to a reduction of costs as fewer work-related incidents will occur, reducing overall costs.

UKP&I

UKDC
UK DEFENCE CLUB

Together, we can improve seafarer safety

We have a dedicated, worldwide loss prevention team providing Members with proactive and inclusive support

MANAGED BY **THOMAS MILLER**

Flettner Rotor Sails for Ship Propulsion

By **Paul D. Sclavounos**,
Professorof Mechanical Engineering and Naval Architecture, Massachusetts Institute of Technology,

Nikos Mazarakis,
Client Relations and General Office Manager, StormGeo Greece AS

and **Dimitris Katsanos**,
Senior Research Scientist, National Observatory of Athens – IERSD

Background

As the shipping industry transitions into an era of Green House Gas emission mitigation policies, a number of green technologies are being deployed to keep vessels fuel compliant in carbon-constrained markets. They include rotor rails (a.k.a. Flettner rotors), air lubrication, ship routing software, data mining, and machine learning.
The operation of rotor sails is based on a well-studied aerodynamic principle known as the Magnus effect. They supply thrust and pure propulsion energy to the ship when the apparent wind speed is incident at an angle relative to the ship axis. By comparison, the chemical energy in fossil fuels undergoes two conversion cycles before producing pure propulsion energy, the first by the diesel engine with a typical efficiency of 40% and the second by the propeller with a typical efficiency of 65%. Based on fuel consumption data collected onboard ships, fuel savings of 20-35% are realistic when 4 rotors are installed on a vessel.

Ocean Wind Speeds

The fuel savings contributed by rotor sails depend on the magnitude and direction of the wind speed. Detailed wind speed data made available by the meteorological community are processed and delivered by ship routing software vendors like StormGeo. Such ship routing software display wind speeds and directions during a voyage and are able to generate accurate forecasts of the fuel savings contributed by the rotor sails in the course of a voyage. Moreover, via the combined use of weather routing software (e.g. Bon Voyage System) or Routing Advisory Services (RAS), a further increase of fuel consumption savings becomes possible. Furthermore, offshore wind speeds are stronger and more persistent than those encountered onshore due to the reduced friction of the wind velocity against the smoother ocean surface.

It is noteworthy that the mean wind speed at most points exceeds 14 knots and is very close to the 17 knots threshold, which corresponds to the transition from the Beaufort 4 to the Beaufort 5 scale. The lower wind speeds are observed near the equator (points 25-30) as expected. At most other points, both in the South Atlantic (points 1-13) and the Indian Ocean (points 14-24), the mean wind speeds are strong and able provide very significant propulsion power to the rotor sails which is maximized by optimally adjusting their rotation speed as the wind speed fluctuates around its mean.

Investment in Rotors and Split Incentives

Two criticisms are often levied against investments in rotor sails:

- Split incentives between shipowners and charterers. When the charterer pays for the fuel, shipowners lack the incentive to install rotors on their vessels. Charterers, on the other hand, lack the incentive to fund the installation of rotors on vessels they hire for time periods shorter than the payback time of the investment.
- Lack of wind over certain time periods and routes may not justify an investment in rotors on vessels trading in the spot market when the payback time is more than a few years.

Both criticisms may be addressed as follows:

- Rotors may be designed to be removable. They can be fitted on the deck of a bulk carrier over the duration of a voyage and operated optimally based on wind speed forecasts.
- Investment in rotors may be carried out by a third-party entity, for example, a private equity fund that would acquire a portfolio of rotors to be deployed on a fleet of vessels. The fuel consumption savings from the rotors is the income earned by the investor and may be accurately measured.

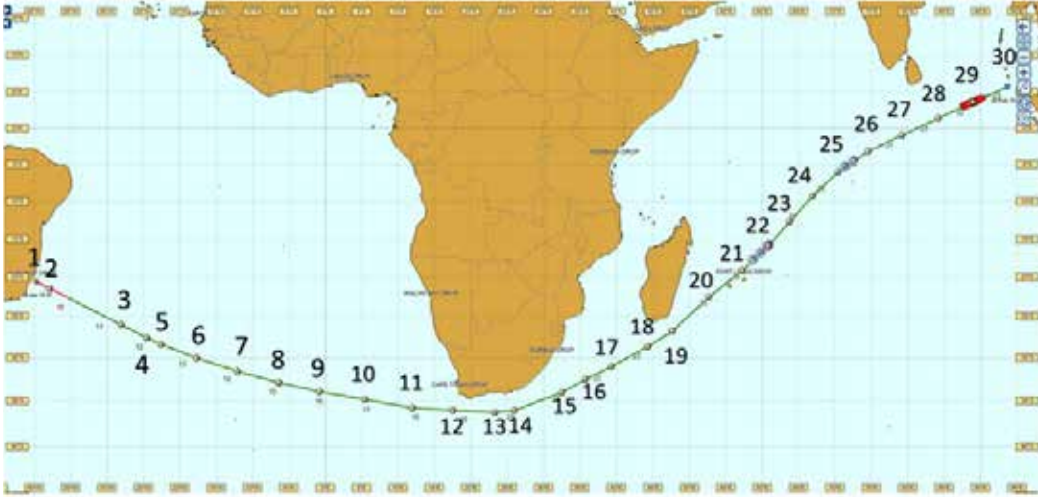


Figure I: The wind speeds illustrated in Table I were carried out along a typical route of a bulk carried from Argentina to Singapore and were selected at 30 different fixed locations, indexed 1-30 in the Figure. The voyage trajectory was traced by the Bon Voyage System.

Rotor Portfolio Valuation

Consider a 30,000-dwt bulk carrier consuming 25 tons of fuel per day fitted with 4 rotors for the duration of a voyage. Based on available data, the average fuel consumption savings are conservatively assumed to be 20%. With the cost of fuel at $500/ton, the resulting income is $2,500/day or $912,600/year. If the installation of 4 rotors is an isolated acquisition by the shipowner or the charterer at a cost of $500,000/rotor or $2M, the payback time is 2.2 years and the investment might not be undertaken. When the acquisition is a component of a portfolio investment in removable rotors mounted on a fleet of vessels, a Net Present Value (NPV) analysis suggests a potentially very profitable investment.

The risk of rotor investments arises from the variability of the wind speeds and their forecasts. The volatility of the rotor income decreases significantly when averaged over the number of vessels in a fleet sailing in geographically dispersed routes with different and independent wind speed regimes. In particular, the volatility of the aggregate income of the fleet decreases like the inverse square root of the number of rotor-equipped vessels, by virtue of the central limit theorem in statistics. Assuming a Weighted Average Cost of Capital (WACC) of 7% and a 30-year life of each rotor, the NPV of an investment in 4 rotors per vessel is $9.3M. This translates into an NPV of $2.3M/rotor over four times its acquisition cost, corresponding to an Internal Rate of Return (IRR) of 45%. Combining the statistics of wind speeds with machine learning forecasts, the investment risk in a rotor portfolio may be quantified and rationally priced, leading to a reduction of the WACC and an increase of the value of the investment, notwithstanding the green credentials that would accrue to rotor equipped vessels.

Point #	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15
Average	14.6	14.4	13.4	13.8	13.8	14.0	14.4	14.8	14.8	14.6	15.7	16.9	17.1	16.7	16.9
Maximum	33.0	31.7	35.2	39.5	43.2	38.5	42.8	40.8	43.7	41.8	51.9	52.1	51.9	49.8	44.5
Q1	11.1	11.1	9.5	9.5	9.5	9.3	9.5	9.9	9.5	9.7	10.9	11.9	11.3	11.1	11.9
Q2	15.0	14.6	13.4	13.4	13.6	13.6	14.0	14.4	14.6	14.2	15.6	16.6	16.5	16.3	16.9
Q3	18.3	17.7	17.1	17.5	17.7	17.9	18.9	19.4	19.4	18.9	20.2	21.6	22.4	21.8	21.6
Point #	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
Average	15.7	15.7	14.6	17.1	13.6	15.7	16.3	15.4	13.4	11.1	9.1	9.7	11.5	11.3	11.1
Maximum	42.4	46.3	41.2	41.6	43.2	41.0	45.3	44.3	38.7	28.6	28.4	30.1	30.7	33.2	27.4
Q1	11.3	11.7	10.5	13.8	9.7	12.2	12.6	11.3	9.1	7.2	6.0	6.6	7.4	6.8	7.0
Q2	15.7	16.1	14.4	17.5	13.4	15.7	16.5	15.7	13.8	10.9	8.9	9.7	11.1	11.3	10.9
Q3	19.8	19.8	18.3	20.6	17.3	19.4	20.2	19.8	17.9	14.8	11.9	12.6	15.2	15.4	14.8

Table I: Wind speeds 30 meters above sea level at the 30 fixed locations shown in Figure I for the period January 2015 – December 2017 (3 years). The values in the Table illustrate the average wind speed and its Q1, Q2, Q3 quartiles, namely the wind speeds which are exceeded by 75%, 50% and 25%, respectively, of the wind speed records at the fixed locations. For example, at location 12 which geographically is located at Cape Town, the average wind speed during the selected 3-year period is 16.9 kn, the highest recorded wind speed is 52.1 kn, while 25% of the recorded wind speeds were higher than 21.6 kn. The wind speed data were obtained from the organization Copernicus.

How to measure a ship's real energy efficiency

By **Panos Zachariadis**,
Naval Architect, MSE.
Technical Director, Atlantic Bulk Carriers Management, Ltd.

If we are serious about reducing CO_2 emissions from ships, we need to find a way to measure each ship's real efficiency, as opposed to using irrelevant "energy efficiency indicators."

The EU, the IMO and the shipping industry in general, have been "locked" into using totally ineffective indicators or indices based on which, not only do they "measure" efficiency but also legislate serious measures which unnecessarily upset the whole industry affecting how ships are built and operated, without however resulting in increased efficiencies or reduced CO_2 emissions. By now, the EU, the IMO, and half the people involved in shipping know very well that EEDI, EEOI, AER, etc. have little relevance to actual ship efficiency, and the other half suspect it but choose to pretend otherwise.

There are generally two kinds of efficiencies in any vehicle: a) The inherent efficiency of its design and b) how efficiently it is operated. Starting off with the latter, any index devised to measure operational efficiency in ships is bound to fail simply because the factors outside the control of the operator (weather, cargo availability near or far, etc.) weigh too much on the index. I have always said that EEOI is practically a random number generator, and several submissions to IMO in the past have highlighted the unreliability of this and other operational indicators. Furthermore, a recent study by the Technical University of Denmark(1) presented at the last IMO MEPC (74) meeting should have put the issue to rest (but it won't). In short, the study found that EEOI cannot "… convey any meaningful message regarding energy efficiency," while AER (IMO's preferred index) "is also inadequate for benchmarking purposes."

In other words, if one uses, for example, EEOI as a measure of operational efficiency, one will be falsely rating many inefficient ships as "efficient," while many efficient ships will be regarded as "inefficient." Enter now the European Union which, not only insists that each ship provides its annual EEOI to it under its MRV regulation, but it also plans to "name and shame" the ships with bad EEOI at its official site! "How is this possible?" one may ask. Doesn't the EU follow the studies? The only sensible explanation I have heard for the EU's insistence on EEOI is that, since it plans to apply ETS (Emissions Trading Scheme) to shipping, an index is required (to force the "inefficient" ships to buy CO_2 allowances, etc.). I cannot fathom how the EU can still consider the equivalent of a dice throw as the basis of its shipping ETS.

Let us now examine Design efficiency. As the name says, design efficiency is how efficiently the product was designed. Designed for what? For its intended use, of course. We don't design a step ladder with each step being two meters apart and then claim it is an efficient design because it minimizes construction material. Similarly, an efficient car is such when the manufacturer demonstrates its measured efficiency based on a typical operating cycle. In other words, the operational efficiency of the product is due to its design efficiency. Thus, design efficiency indicators (e.g., automobile EU6) are awarded based on the operational efficiency of the design[1].

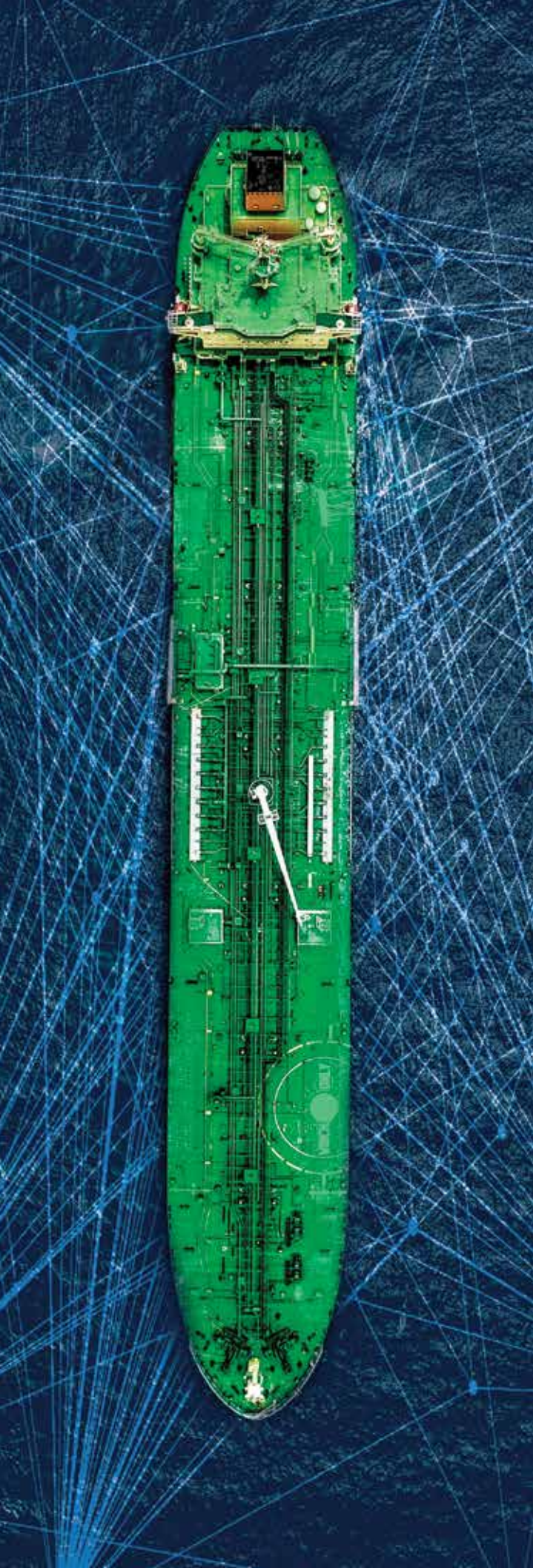
But what do we do for ships? We consider Design efficiency something totally removed from opera-

1. Monitoring the Carbon Footprint of Dry Bulk Shipping in the EU: An Early Assessment of the MRV Regulation

Adams Ship
Buildings & Repairs FZE

- Ship Repairing
- Conversions
- Ship Building
- Electrical Repairs
- Piping
- Steel Fabrication
- Mechanical Repairs
- Fuel Pump Injector Repairs

Tel: 0097165269301, Fax : 0097165269305, P.O.BOX 50906, Hamriyah Freezone, Sharjah, UAE
Website : www.adamship.com, Email : info@adamship.com



tional efficiency. We grade such design efficiency by testing the ship at a rarely operating draft (maximum) in conditions she will never encounter in her life (no wind, no waves, no current). And based on that, we assign to her a design efficiency index (EEDI). Since the test conditions have no connection to the ship's actual operating environment, obviously, a good EEDI doesn't mean much, if anything. A "bathtub" shaped ship can perform nearly as well as a hydrodynamic hull in calm seas, whereas a ship with a strong engine (to really save on consumption in actual sea conditions for the same cargo capacity and speed) gets severely penalized on EEDI.

As for the "operational" phase of the product, we turn our attention to, and we regulate, the user! The equivalent of regulating how efficiently a car driver drives his, otherwise inefficiently designed, car. What's more, in the case of ships, the weather and the market (cargo availability nearby or not) drive the efficiency index despite any best practices of the operator.

Going forward: We need to reduce CO_2 emissions from shipping. To achieve this, we need to start rating and regulating the design of ships based on their efficiency in their real intended environment. IMO already has the tool ready; it is just not used because the current status-quo suits the makers of ships fine. Install an ever-smaller engine and -presto- you comply with any stricter EEDI. The unused tool is called "weather factor – f_w" and the EEDI that results when f_w is applied is EEDI_weather.

f_w measures how much is the speed loss of a ship design from Beaufort 0 to Beaufort 6. Obviously, a ship that loses a small percentage of its design speed in waves is more efficient than one losing a large percentage. Thus, EEDI_weather is a much better design index since it considers the performance of the design at the actual operating environment of the product (ship), albeit only at one draft (maximum draft). If we could agree to also test the ship at its ballast draft (which is done anyway at sea trials of bulk carriers), and assign to it an EEDI_ballast, we could finally form a realistic efficiency index which incorporates both the design and the operational efficiency of the ship.

This is nothing new as it has been used for decades in shipping to hire ships. In order to choose the most efficient ship to hire, charterers require a matrix of 4 numbers from the owner, for weather conditions inclusive of Beaufort 4: 1. Laden guaranteed speed and consumption; 2. Ballast guaranteed speed and consumption; 3. Laden slow (eco) speed and consumption; 4. Ballast slow speed and consumption. With this data and the intended trip, any excel spreadsheet can easily show the most efficient ship to hire from those available to the charterer.

The all-encompassing efficiency index that I propose, therefore, would substitute any particular trip with the typical operating profile of the ship type in question. For example, bulk carriers operate laden about 60% of the time. A true efficiency index would then look as follows:

EEDIweather-laden x 60% + EEDIweather-ballast x 40%

And for those wishing to improve it, EEDIeco can be included, requiring just an additional sea trial run at, say, 40% of maximum power. We could then get away with the irrelevant separate design and operational indicators, and use instead one index to correctly reflect the efficiency of the design for its intended operation.

JSHOPFEST

READY TO TAKE THE NEXT STEP TOWARDS BWTS & EGCS?

C&A STAVROS KASSIDIARIS IS AT YOUR SERVICE TO SUPPORT YOU FOR ALL YOUR QUERIES RELATED TO THE FOLLOWING TYPE OF APPROVED MARINE CABLES:


Marine Power Cable

- **MARINE POWER CABLE**
  - »PRODUCED ACCORDING TO IEC 60092-353/354
  - »RATING VOLTAGE UP TO 26/35KV
  - »APPROVED BY ABS, BV, DNV GL, LR, NK, RINA
  - »FLAME RETARDANT & LSHF CABLE


Marine Data Cable

- **MARINE DATA CABLE**
  - »MARINE APPROVED LAN CABLE
  - »CAT.5E, CAT.6A, CAT.7 DATA CABLE
  - »APPROVED BY ABS, DNV-GL
  - »LSZH SHF1 CABLE


Marine Wires

- **MARINE WIRE**
  - »ACC. TO IEC 60092 SERIES STANDARD
  - »FLEXIBLE TINNED COPPER CONDUCTOR
  - »XLPE / PO / PVC INSUALTION
  - »APPROVED BY ABS, BV, CCS, LR


Marine Telephone Cable

- **MARINE TELEPHONE CABLE**
  - »PRODUCED ACCORDING TO IEC 60092-376
  - »OVERALL SCREEN OR INDIVIDUAL SCREEN
  - »APPROVED BY ABS, BV, DNV GL, LR, NK
  - »FLAME RETARDANT CABLE

- **EMC CABLE**
  - »FOR FIXED INSTALLATION IN MOST AREAS AND OPEN DECKS IN SHIPS
  - »ABS, CCS APPROVAL
  - »CBPJP86/NC TYPE FIRE RESISTANT CABLE
  - »CBPJP86/SC TYPE FLAME RETARDANT CABLE

- **VFD CABLE**
  - »FOR POWER CABLE ON OFFSHORE UNITS INTENDED FOR FIXED INSTALLATION
  - »APPROVED BY ABS, DNV GL
  - »BFOU-VFD TYPE FIRE RESISTANT CABLE
  - »RFOU-VFD TYPE FLAME RETARDANT CABLE

CERTIFICATES

ABS · RINA · Bureau Veritas · Lloyd's Register · ClassNK · DNV·GL

C&A CONTROLS & AUTOMATION TRADING & CONSTRUCTION Co
STAVROS KASSIDIARIS S.A.

97 Agchialou & 73 Aegaleo Str., 185 44 Piraeus, Greece
Tel: +30 210 4636000, Fax : +30 210 4624471
E-mail : info@kassidiaris.gr, Web: www.kassidiaris.gr

Danaos in the fight against emissions

The R&D department of Danaos Shipping

In a shipping environment facing demands, challenges, and rapid changes, the speed of decision-making and solving problems is vital to the survival and growth of this industry's companies. The Naftika Chronika team communicated with Mr. Iraklis Prokopakis, Senior VP and COO of Danaos Corporation, who referred them to the DCOO &Technical Director, the R&D Manager, and the Analytics Specialist of the R&D department of Danaos Shipping Co. Ltd Ship Managers to discuss the company's successful combination of technological excellence and corporate culture, which are leading the company's ships to improved energy efficiency and essentially pointing the way for the future.

Speed in locating and resolving a problem should be a top priority for every company

By **Dimitrios Vastarouchas,**
Deputy COO & Technical Director of Danaos Shipping Co. Ltd Ship Managers

As a tonnage provider, DANAOS does not directly benefit from cost savings as our customers bear these costs, but it is our commitment and an integral part of the company's culture to provide a fleet of highly efficient and optimized vessels in order to remain competitive and maintain the lead in our class. Our goal is to achieve competitive consumption for our vessels and, in this way, to improve the environmental footprint of our fleet.
The approach we have adopted in this direction is based on three pillars:

- **The establishment of an R&D department**
- **The study of 38 energy efficiency improvement measures**
- **The development of WAVES data analytics platform**

R&D department is made up of specialists involved in research, who, among other things, study a large number of proposals for optimizing the energy efficiency of vessels, and through a process of internal evaluation, propose investing in those they consider potentially useful and effective.
The study of 38 measures, is aimed at increasing the energy efficiency of vessels - a project that started in 2008 and continues to this day - through updating data and adding new innovative systems that can be applied to the company's ships. In this context, we have worked with reputable shipping partners and are among the first to exchange feedback and suggestions with leading liner companies that belong to our clients' portfolios.
Of course, the above mentioned measures are now well known, and several of them have already been implemented.
For us, the differentiation lies in the way one can control the actual consumption burden and take corrective actions immediately as well as in the speed of response to the 'problem' - whether it involves mismanagement by personnel on board or bad quality oils, etc.
It is vital to grasp the problem quickly and to be the fastest to solve it.
It was this need that laid the foundation for the third pillar of our strategy, which was the realization of the vision we had seven years ago for the design and implementation of WAVES. WAVES is the implementation and digitization of our ideas and 40 years of experience, integrated within the company's business platform, and incorporated into its workplace culture. WAVES has given us enormous capabilities and is primarily aimed at being able to monitor closely and control the performance of the vessels and, therefore, the investments we have made. To reach a desirable level of emissions, a series of measures followed by speed reductions would have to be implemented.
In this context, it was imperative to compare the actual performance of the vessels with the objectives we had set in order to identify any deviations.
With the algorithms we devised, we managed to prevent the development of performance penalties, which gives the company a competitive advantage.
If we look at it from a real work situation perspective, we have reached a point where, for example, a coordinator who is in charge of eight ships is able to evaluate 80 routines simultaneously on each ship, that is, 640 in total. Every morning this process is performed automatically, and every employee can see the status of each ship on-line, with targeted alerts in areas that require attention. The above automated feature for extracting indices and alerts from a large number of routines 'running' in the background is a state-of-the-art decision-making tool at the moment.
The above are our key steps that required that the company invest around $ 87 million over a decade. Of the $87 million, about $45 million is dedicated exclusively to optimizing consumption and the reduction of pollutants.
Of course, to all the above, one must add our huge investment in training people. We had to overcome obstacles such as resistance to change and the fear of crews associated with this new method of monitoring things through sensors, which essentially control everything, and eventually, to cultivate a new culture. Spreading the message "save energy on board" and getting our people to embrace and adopt it, is a huge asset. The fact that we have our own crew offices has benefited us as we have invested in in-house training; all this was presented and explained in detail.
As for the workplace culture, we faced another major challenge. In the first year we implemented on-line systems, our people reacted because they basically had to start their day by watching the problem on their computer screens. We were particularly concerned, so we launched a campaign to get the message across that all this is "your everyday friend"

in today's reality. They are the weapons we provide that allow one to meet the new challenges and demands, which are too many and difficult to meet in the traditional way. The message is clear: transparency and data sharing are the only way to deal with our customers.

At Danaos, we have invested in monitoring the passage plans of vessels; specifically, there are instructions either by us or by the charterers, through sea routing systems, which determine that the vessel must follow a specific route from port A to port B, as this is the optimal route. Therefore, we monitor the slightest deviation in the vessel's journey from point A to point B based on its passage plan. We consider this to be one of the most important measures to ensure that one gets the most out of the investment one has made.

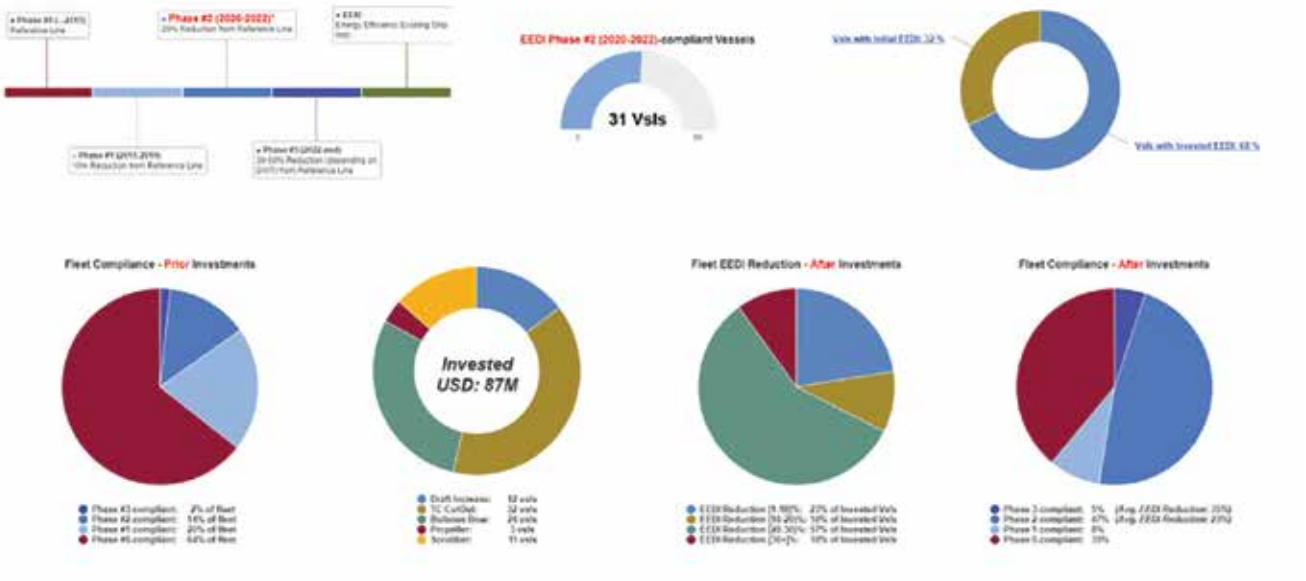
At the same time, in collaboration with a sister company, we are working on artificial intelligence to optimize algorithms and develop more accurate forecasting models.

In conclusion, we could say that for a company to be considered commercially and environmentally competitive in terms of reducing pollutants, it is required to invest a great deal in 1) energy efficiency improvements, 2) the creation of an R&D department, and 3) advanced software to digitize all its processes - along with the enhancement of its people's culture- in order not only to make investments but to control and actually prove them in practice.

How we achieved significant reductions in our ships' pollutants

By **Evi Politi**,
R&D Manager of Danaos Shipping Co. Ltd
Ship Managers

When the company's R&D was first established in response to the increasing market needs and, of course, our customers' need for efficient and environmentally sound vessel operation, we placed emphasis on the study of energy efficiency optimization methods for vessels. This includes optimizing the vessels' design, their operating profile, as well as the way their performance is monitored. In this context, we have studied and evaluated 38 methods of optimizing the energy efficiency of vessels, which we have categorized according to the system that was optimized: propulsion system (main engine -



Graph 1

propeller), fuel, on board energy management, reduction of hull roughness, intervention on the hull design to reduce friction or ripple resistance, or improvement of vessel operation.

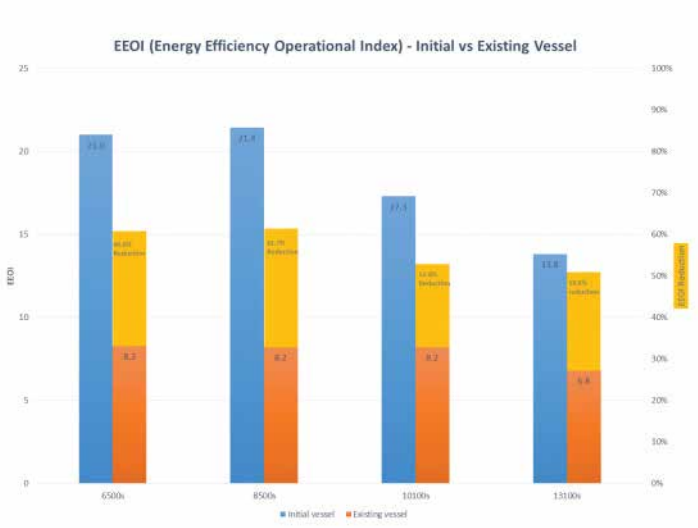
Having studied all these measures, we arrived at a conclusion about whether they would be worth implementing on containerships. Of course, the expected returns of each measure vary and do not work cumulatively. Therefore, during the first phase, we first had to evaluate which measures were worth implementing on the company's vessels, and by taking into account each ship's hull lines, equipment, and special features, to assess its dynamics through CFDs studies and model tests in experimental tanks. After they were implemented, we were able to determine the real savings from those in which we chose to invest. The necessity for evaluating the investments done led to the creation of a smart operational platform (WAVES) that analyzes and processes data as a decision making supporting tool.

The platform then performs a comparison between the actual operating data and the data we had expected as a result of the investments made in each ship and goes on to produce automatic alerts in the event of deviations from the optimal operation, thereby always ensuring close monitoring and timely and effective response to any problem.

In an effort to evaluate the performance of the ship's energy efficiency measures, we developed the corresponding EEDI (Energy Efficiency Design Index) index for all the company's vessels regardless of the year of their construction (corresponding to the EVDI index developed by Carbon War Room and RightShip). The above indicator was then calculated after optimization was completed on each ship, and its reduction coefficient was determined, which reflects the level of efficiency increase compared to that of the original design.

We have separated the various compliance phases and the various EEDI thresholds taking into account the reduction factors by IMO. At each phase, we see the number of compliant vessels. It is noteworthy that after investing $ 87 million, an EEDI improvement of over 20% on over 60% of the fleet was achieved, while over 50% of the fleet is in phase 2 compliance, as shown by Graph 1. The main finding is that these compliance rates increased significantly after the investments.

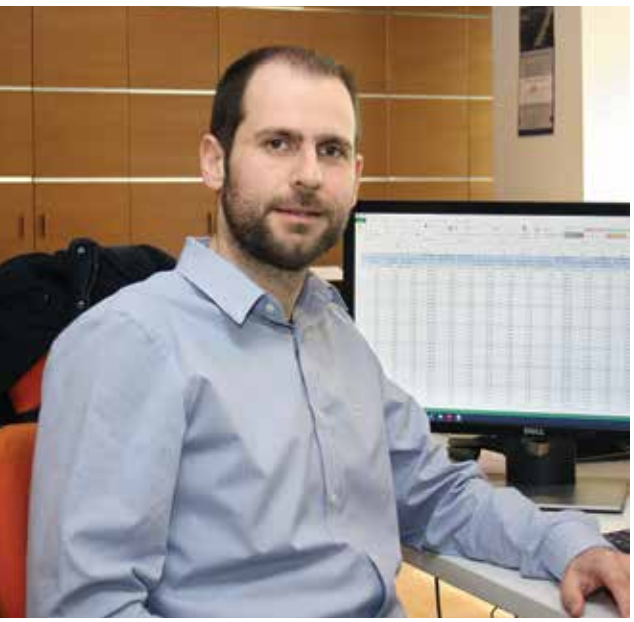
In the following graph, we show how the CO_2 footprint for four distinctive carrier capacity categories ranging from 6,500 to 13,000 TEUs. The blue column depicts theoretical EEOI basis on initial vessel design and consumption on a specific route. The reduction in the index is above 50% for all ship categories as a result of the speed reduction and the improvements applied on each vessel.



Graph 2

The challenges in properly implementing the WAVES platform

By **Dr. Stamatios Arkoulis**,
Analytics Specialist, R&D Dept. of Danaos Shipping Co. Ltd Ship Managers



The purpose of the WAVES platform is to take advantage of both office and ship-generated data to bring added value to DANAOS in an environment where data flows are constantly increasing. In essence, what we have tried and managed to accomplish with WAVES is to combine DANAOS's long experience in ship management with new technologies to maximize the company's operational efficiency and gain a competitive advantage.

One of the main challenges that WAVES has to face is ensuring the smooth collection of data while safeguarding their quality and integrity. We should not overlook the fact that we are talking about data coming from mechanical equipment that operates in high noise environments, which is transmitted over channels (satellite links) that may induce losses. Additional challenges include storing the data and ensuring their long-term sustainability, taking into account the fact that we manage huge streams of data created every minute or every second. Filtering data, especially disorienting data, and identifying defective sources that may disorient DANAOS Shipping's algorithms are also considered to be of high importance. Taking into account the above challenges, we have created an infrastructure that integrates all the collected heterogeneous data for combined processing and then extracts results of high-precision and value. At the same time, through WAVES, we strive to integrate both DANAOS's different systems and the heterogeneous external data streams, while identifying opportunities for new data collection solutions from third-party entities constantly coming to the fore.

Among the main reasons that led to the in-house development of the WAVES platform are the flexibility and speed offered by this approach, both of which are extremely important in a volatile shipping environment characterized by strict deadlines. In addition, this model allows the R&D team to prioritize resources based on the dynamics of emerging requirements and regulations. At the same time, it contributes to the full and without any compromises utilization of DANAOS's in-depth knowledge of the subject and the cumulative experience of its dedicated staff, while protecting algorithms and sensitive data from being exposed to third parties. Finally, the combination of a deeper understanding of the company's operating model and internal processes, coupled with the creation of a qualitative and free of misunderstandings channel of communication between stakeholders, is crucial to the success of the project.

SERVICE | PRECISION | SPARE PARTS | TURBOCHARGERS

CERTIFICATE
ABS ISO 9001:2015

TURBOTEC-PISTOLIS L.T.D.

D. & TH. PISTOLIS
DIRECT LINE SERVICE: 6944 304863

PASSED

123 DIMOKRATIAS Av. GR 18863 PERAMA-PIRAEUS
TEL: 0030 2 10 44 15 963, + 2 10 4022 794, 6944 596079 FAX + 2 10 44 14 104
www.turbotec-pistolis.com info@turbotec.gr

MEMBER OF SEABRIGHT GROUP

SEACABLES®

MARINE CABLES & ACCESSORIES

Your One Stop Supplier for your

BWTS & SCRUBBER RETROFIT

- Supreme Flex Cables
- Cooper Braid Armor
- More than 100 codes IN STOCK - Daily Deliveries

CERTIFICATES

Headquarters
Piraeus - Greece

MARINE BRIGHT SOLUTIONS

UPGRADING YOUR VESSELS TO LED IN THE MOST EFFICIENT WAY

SEABRIGHT®

BY

A. MALLIOS

Among the Leading Marine Lighting European Manufacturers

3.500 SQM PRODUCTION LINE AND WAREHOUSE FACILITIES

PROUD WINNER OF LLOYD'S LIST GREEK SHIPPING AWARDS 2019, IN THE CATEGORY TECHNICAL ACHIEVEMENT

51, VASILIKON STR. - 185 40, PIRAEUS - GREECE
+30 **210 4082208**, fax +30 **210 4620888**
sales@seabright.gr
www.seabright.gr

Greece and Panama have very close ties based on democratic values

In her interview to *Naftika Chronika*, Panama's Ambassador to Greece H.E. Ms. Julie Lymberopulos refers to the bilateral relations between Panama and Greece and expresses her belief that the two countries can collaborate closer in cultural, educational, and economic fields.

Your Excellency, you were appointed Ambassador and General Consul of Panama in Greece about two months ago. What are your first impressions? In your view, what are the main challenges you will be called to face in this important position?

Greece has always been my second home since both my parents are Greeks. Greek is my second language, so in professional and personal communications it has been easy for me to understand the Greek language and culture.

My professional goal is to build a stronger relation between our countries and work together as a whole. Greece and Panama have very close ties based on democratic values and mutual respect. My main challenge is to make Panama the most preferred flag on Greek vessels as it was many years ago.

Your career has been impressive. As a diplomat, you have been involved in Greek diplomatic life for 22 years, and for the past 10 years, you have been the Chief Financial Manager and Administrator of various corporations under the Lymber Group, a family business established over 65 years ago. Having come a long way in both diplomacy and corporate leadership, did you find the transition into the extremely important post of the Ambassador and Consul General of Panama in Greece easy?

Yes, having experienced both worlds has made me wiser, stronger, and self-confident in assuming the responsibility to represent Panama, the coun-

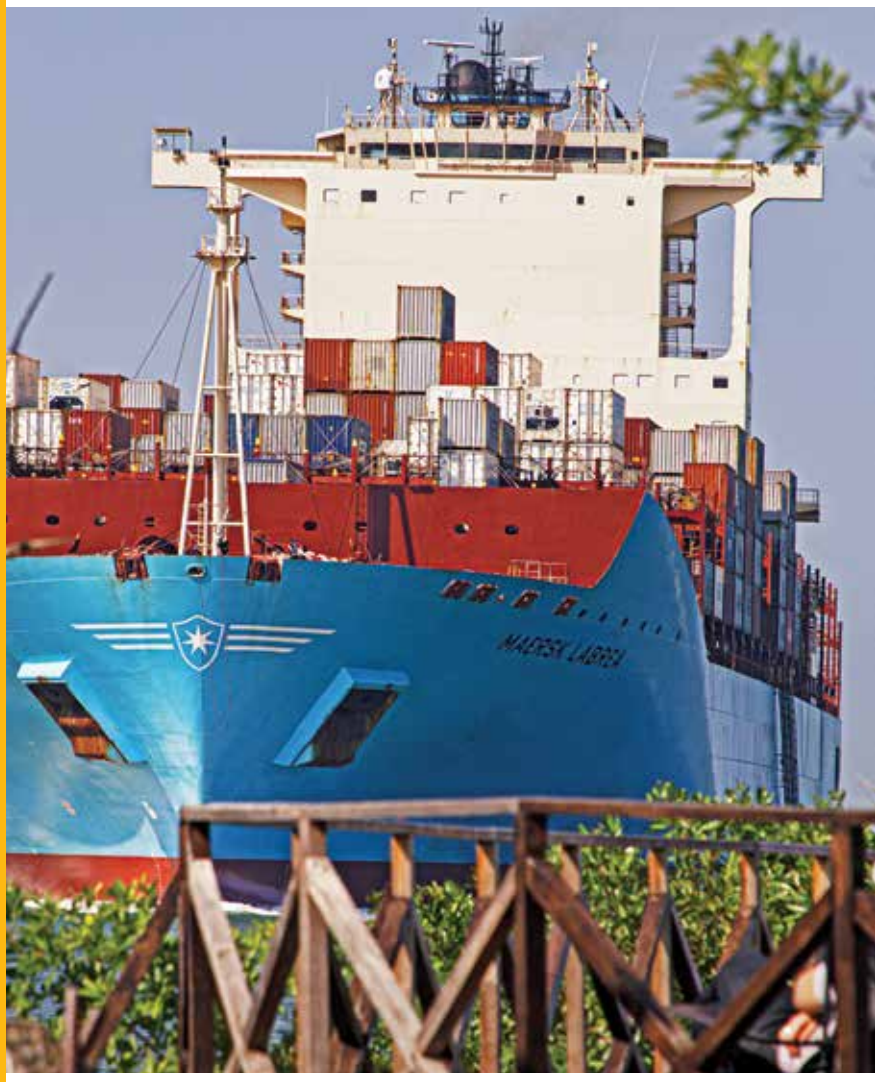
try where I was born and raised, with excellency, and to honor my parents in their homeland.

Panama is a port city that has close relations with Greek shipping. You recently had a meeting with the Mayor of Piraeus, Mr. Yiannis Moralis. Do you think there is room for strengthening bilateral relations between Greece and Panama? What are the prospects of developing joint actions with the port of Piraeus?

Yes, very recently we had a fruitful meeting with Mayor Yannis Moralis. We had a lengthy discussion about our countries and the prospective relationship between our cities, which actually have a lot in common. We agreed on starting by unifying both our cities, Piraeus and Panama, as sister cities.
We decided to work together to develop different projects in the near future. Most of our joint actions include cultural, educational and economic fields.

Because of the Panama Canal, many Greek seafarers settled in Panama, with the result that today there is a large Greek community in Panama. You were born in the city of Panama to parents of Greek descent. How many Greeks currently reside in Panama and what professional activities are they involved in?

In Panama, today, we are around 1,000 Greeks (the population of Panama is around 4,3 million) who are all very proud of our Greek heritage. The Greek presence in Panama has been strengthened over the years as Greek shipping conquered the world with the Panamanian flag. Our Greek community in Panama is very active and quite dynamic. Not to mention that Greeks in Panama have always played an important role, not only socially but also politically and economically.
Actually, our President Laurentino Cortizo Cohen is also of Greek descent from his mother's side, who came from Thessaloniki.
We had a President, Demetrio Basilio Lakas, who was the 27th President of the Republic of Panama and, also, a Minister of Education, Pablo Antonio Thalassinos whose fathers were from Greece. We have bank owners, prominent and influential businessmen, renowned doctors, strong lawyers and plenty of restaurant owners.
Also, we have a famous Greek school, Instituto Atenea, with over one thousand students, mostly Panamanians, who are learning the Greek language as well as the Greek culture. Every year, the graduates travel to Greece on educational trips.



International waters

News from the seas of the world

Edited by:
Giannis Theodoropoulos,
Michalis Nikolaou

MARITIME ENTREPRENEURSHIP

-

A.P. Moller - Maersk to acquire U.S. warehousing and distribution company

A.P. Moller - Maersk announced that it had reached an agreement to acquire Performance Team, a US-based warehousing and distribution company, to further strengthen its capabilities as an integrated container logistics company, offering end-to-end supply chain solutions to its customers. Performance Team specializes in B2B and B2C distribution solutions within retail, wholesale, and e-commerce with 24 warehousing sites.
"With this acquisition, we invest in premium operational capabilities to significantly boost our existing Warehousing & Distribution offering. This will strengthen our ability to deliver products and solutions that meet our customers' end-to-end supply chain needs," said Vincent Clerc, C.E.O. of Ocean & Logistics at A.P. Moller - Maersk.
Maersk is targeting the Warehousing & Distribution component to offer more supply chain options and flexibility to its Ocean customers. The global size of the Warehousing & Distribution sector is estimated at more than USD 200bn, and for North America, it is USD 50bn. There is a significant growth opportunity for 3rd party Warehousing & Distribution players as only a small part of the Warehousing & Distribution sector in North America is currently outsourced, and e-commerce is growing 12% annually.

Nakilat records highest profit ever

Qatar Gas Transport Company Ltd (Nakilat) QPSC, its subsidiaries, and associates ("Group") reported a consolidated net profit of QR 1,003 million in 2019, an increase of 12.4%, as compared to QAR 892 million for the same period in 2018. The company's robust financial performance is primarily attributed to operational excellence in the management of its Liquefied Natural Gas (LNG) and Liquefied Petroleum Gas (LPG) vessels, as well as realizing additional revenues from the two additional L.N.G. carriers, one Floating Storage Regasification Unit (FSRU) acquired in 2018, and the strategic acquisition of the remaining 49.9% of four Q-Flexs on October 2019. Nakilat's emphasis on cost optimization efforts and increasing efficiencies through various rationalization activities as well as process enhancements

ensure that the company remains competitive within the global energy transportation market while sustaining healthy cashflow and generating steady returns for our shareholders.

MOL and DSME join forces to develop an Environmentally Friendly FSRU Technology

Mitsui O.S.K. Lines, Ltd. (MOL) and Daewoo Shipbuilding & Marine Engineering Co., Ltd. (DSME) have agreed to jointly develop a new technology to reduce the environmental impact of Floating Storage and Regasification Units (FSRUs)

This new technology named "Cryo-Powered Regas" will enable the utilization of the LNG cold energy for power generation by adopting the Organic Rankine Cycle in the regasification process of the floating storage and regasification unit. "Cryo-Powered Regas" technology is expected to reduce fuel consumption and CO_2 emission of an FSRU significantly.

MOL and DSME plan to test the technology in a small-scale pilot facility within 2020 and provide this safe and environmentally friendly technology to customers in future FSRU projects.

MOL values promoting environmental and emission-free businesses. This project is one of the cases where MOL will take proactive measures to enhance the environmental compatibility of its services.

DP World to delist from Nasdaq Dubai

DP World's parent company Port and Free Zone World has offered to acquire the 19.55 per cent of DP World's shares traded on Nasdaq Dubai, returning the company to private ownership.

The move will enable DP World to focus on its medium-to-long-term strategy of transforming from a global port operator to an infrastructure-led end-to-end logistics provider. Upon successful offer acceptance, DP World will be 100 per cent owned by Port and Free Zone World, which in turn is a wholly-owned subsidiary of Dubai World.

The Board of Directors of Port and Free Zone World and the Independent Directors of DP World have reached agreement on a cash offer for the shares, which the Independent Directors deem to be fair and reasonable. Each DP World share will be acquired at $16.75, representing a 29 per cent premium on the market closing price of $13.00 on Sunday 16 February.

Wärtsilä and BW LPG expand retrofit agreement for VLGCs

Wärtsilä and BW LPG are so pleased with the test of a system that injects LPG as fuel that the parties are extending a retrofit agreement from including four vessels to now including eight vessels, wrote Wärtsilä in a recent press release.

This announcement followed a press release dated 30 August 2018, in which BW LPG had announced a world-first initiative to retrofit four LPG dual-fuel engines in its fleet. BW LPG, together with Class (DNV GL), Wärtsilä Gas Solutions, and MAN ES, have since subjected the prototype to rigorous tests successfully, with performance exceeding expectations. When retrofitting is complete, BW LPG will reap benefits across many fronts, such as fuel cost and voyage efficiencies. Most importantly, this represents a significant step forward in the effort to reduce air emissions.

The retrofitting of the first four BW LPG dual-fuel engines into four Very Large Gas Carriers (VLGCs) is planned to take place this year.

GEOPOLITICS

India passes new bill to modernize ports

The Indian government has given the green light to a new bill to improve the efficiency and performance of state-owned ports infrastructure. With the new bill, Delhi seeks to limit the overregulation of India's port system and to enhance the transparency and administrative autonomy of the country's key ports. Analysts also note that New Delhi is trying to modernize India's port system, in which it intends to invest $ 180 billion immediately.

There are twelve state-run ports in India, which during 2018-19 handled 699.04 million tonnes (M.T.) of cargo or 60% of Indian seaborne trade. The prevalence of the Chinese on trade routes and ports infrastructure of neighboring states is a source of concern for the Indian government, which is now in a hurry to prevent China's dominance in Asian trade.

"At present, the ports are governed by a ports law that has been in effect for over half a century," Shipping Minister Mansukh Lal Mandaviya said. He added that the proposed law is aimed at enhancing the efficiency, productivity, and competitiveness of the country's major ports, and at providing operational autonomy to speed up decision-making.

This move will modernize the institutional framework of port management, which besides increasing trade in the region, will create additional employment.

We remind readers that this bill had also been approved by the Indian government in 2016, but due to the emergency dissolution of the House of Representatives, it was not adopted within the time required by the Indian constitution.

U.S. pledges $1B to Poland and Baltic countries

The United States plans to provide up to US$1 billion to countries in Central and Eastern Europe to help them reduce their dependence on Russian oil and gas, as Washington hopes to prevent the completion of the Russia-led Nord Stream 2 gas pipeline from Russia to Germany.

The announcement was made two weeks ago by U.S. Secretary of State Mike Pompeo at a security conference in Munich.

The U.S. official said in this regard that "in demonstration of our support for the integrity, prosperity and energy independence of our European friends, we intend to provide up to $ 1 billion in financing to enhance private investment in the energy sector."

According to Handelsblatt, Poland and the Baltic countries are among those expected to receive U.S. funds. These countries oppose the Nord Stream 2 plans and are trying to wean themselves off Russian energy dependence.

Last December, the U.S. Senate imposed sanctions on companies partnering with Russian giant Gazprom in the construction of Nord Stream 2. The U.S. sanctions on the project have divided Europe, with Germany criticizing the U.S. interference in Europe's energy policies and plans.

New E.U. naval mission to Libya

After a recent meeting in Brussels, European foreign ministers announced that the E.U. would be deploying a new naval mission to the Libyan coast to prevent the delivery of weapons to militants in that country.

As Italian Foreign Minister Luigi Di Maio underlined, "The E.U. will deploy warships in the area east of Libya to prevent arms smuggling, but if this mission causes an influx of vessels carrying immigrants, it will stop."

Earlier, German Foreign Minister Heiko Maas had also stated that European foreign ministers had agreed to a new mission to monitor the implementation of the U.N. arms embargo imposed on Libya.

The decision includes measures to address concerns that the presence of European ships in the Mediterranean Sea would create a "pull factor" for migrants looking to reach the European Union from Libya.

According to Italian Foreign Minister Di Maio, the measures include the deployment of ships in the eastern Mediterranean, away from Libyan maritime routes to Italy, and the promise to suspend naval operations if there is a significant increase in attempted crossings of the Mediterranean by immigrants.

REMONTOWA SHIPREPAIR YARD | MEMBER OF REMONTOWA HOLDING S.A.

Every year Remontowa repairs, converts & upgrades more than 200 vessels including vessels of prestigious Greek owners like Delta Tankers, Pleiades Shipping Agents, Stamco Shipmanagement and Minerva Marine.

Moreover, Remontowa is among the first shipyards to recognize the needs of owners and operators in view of the new environmental regulations. In this respect, Remontowa has already a significant record of successful ballast water treatment systems and scrubbers installations.

TECHNICAL FEATURES OF REMONTOWA DOCKS

PARAMETERS	DOCK 1	DOCK 2	DOCK 3	DOCK 4	DOCK 5	DOCK 6
Lifting capacity (t)	6 400	3 200	15 000	9 000	25 000	36 000
Docking capacity (dwt)	8 000	4 000	50 000	18 000	85 000	135 000
Overall length (m)	131.2	87.4	189.4	164.4	225	255
Supported length (m)	125	85.2	185	150	210	255
Clear breadth (m)	24	21.0	36.9	25.8	37	44.4
Trim (m)	2.5	1.3	2.8	3	4.5	3.2
Cranage (t)	50	50	10+10	10+10	20+20	25+25

Technology and Shipbuilding

Edited by:
Nikos Vergounis

Energy Observer and CMA CGM join forces to make hydrogen one of the energy sources of tomorrow

The CMA CGM Group, a world leader in shipping and logistics and a pioneer in the field of energy transition, is joining forces with Energy Observer, the first hydrogen-powered vessel to embark on a round-the-world voyage.
Energy Observer, formerly a legendary race boat, is now a genuine experimental platform for tomorrow's energy sources. It is sailing around the world in order to speed up the development of the most innovative solutions for the environment.
This partnership with CMA CGM deals with the development of cleaner and more sustainable energies to eliminate CO_2 emissions, greenhouse gases, and air pollutants. It aims to experiment, test, and develop energy solutions based on hydrogen, solar, tidal and wind power.

Hydrogen is a limitless energy source that generates up to 4 times more energy than coal and 3 times more than diesel. The green hydrogen used by Energy Observer is made from seawater using on-board renewable sources of electricity (solar, wind, and hydropower). Producing and burning hydrogen does not result in any greenhouse gas or fine particle emissions.
CMA CGM will contribute its industrial expertise to the Energy Observer floating lab, in order to promote the use of hydrogen as a zero-emission fuel source for the shipping industry in the years to come.

Wilhelmsen makes landmark commercial delivery of 3D printed parts to Berge Bulk vessel

The program, where customers have exclusive access to on-demand additive manufacturing, was launched by Wilhelmsen's Marine Products

division in December 2019. Customers include Berge Bulk, Carnival Maritime, Thome Ship Management, OSM Maritime Group, Executive Ship Management, and Wilhelmsen Ship Management.

"We are very excited with this milestone - completing one of the first commercial deliveries of 3D printed parts in the maritime industry," says Hakon Ellekjaer, Head of Venture, 3D Printing, Wilhelmsen Ships Service. Adding, "This is just the beginning of the journey, and we are quickly expanding our offering, together with our key development partners, enabling our customers to benefit from the savings provided by 3D printing, digital inventory, and on-demand localized manufacturing."

As part of their ongoing cooperation with Ivaldi Group, Wilhelmsen is providing spare parts on-demand to the selected six customers' vessels around the globe. Parts in this program are being monitored in close collaboration with class society DNV GL. Through a unique selection, digitization, and documentation process, every part goes through a quality-controlled process where each part is given a print passport number. All necessary documentation relating to the manufacturing, design, and performance requirements of each part is then captured and enclosed with the delivered part. DNV GL, through the Print Passport Number and their published rules and standards, are providing ecosystem assurance to the Wilhelmsen 3D Printing venture.

MAN Energy Solutions' China Production and Four-Stroke Denmark's Aft Ship & Propeller Department sign intercompany agreement

MAN Energy Solutions' China Production and Four-Stroke Denmark's Aft Ship & Propeller Department have signed an intercompany agreement aimed at expanding the propeller business in China

The purpose of the new agreement is to expand the propeller business even more into the Chinese market by establishing a local CPP Assembly & Test facility. The target is to double the market share, and the plan is to start assembling the first systems in mid-2020.

MAN Alpha propellers and aft ship solutions are designed in Denmark and date all the way back to the 1902-production of the first CP Propeller-based propulsion package – and the first Alpha CPP with mechanical pitch control, which was patented in 1903.

Over the years, more than 7,000 propellers have been delivered for the propulsion of ships at all corners of the globe – operating under various and extreme environments ranging from tropical freshwater to ice-packed arctic climates, and the more ordinary and dominating trades in oceanic, coastal, inland waterway shipping or workboat services via shallow waters, lakes, channels, rivers, and harbours.

Today, dedicated Propeller R&D departments with hydrodynamic, mechanical experts and design engineers located in Frederikshavn and Copenhagen are cooperating with the world's leading test tanks and research institutes for verification of performance optimization related for example to fuel savings, speed, efficiency, cavitation, and noise.

Wärtsilä & DNV GL agree to collaborate in promoting and accelerating marine sector's digital transformation

The technology group Wärtsilä and classification society DNV GL have signed a Memorandum of Understanding (MoU) in which they agree to work together to contribute to the marine industry's ongoing digital transformation. In particular, the two companies wish to further explore the potential use of digital technologies, collaborative data sharing, and standardisation to enhance existing products and services, and to develop new ones. The agreement was signed by Roger Holm, President, Wärtsilä Marine, and Knut Ørbeck-Nilssen, CEO, DNV GL – Maritime on 6th February.

Among the focus areas will be collaboration on digital technologies and big data in classification and the requirements for their use. The project will examine the application of these technologies in areas such as autonomous ships, advanced remote services, new bridge technologies, and data sharing. Cyber security will be another natural area of cooperation.

In announcing the agreement, the two companies noted that digital transformation developments can have an immediate and transformative impact on operations and existing business models.

Samsung Heavy delivers the world`s first LNG dual-fuel shuttle tanker

Samsung Heavy Industries delivered the world's first LNG dual-fuel shuttle tanker in 2020, which is when the International Maritime Organization's tougher regulations on the emission of air pollutants from ships are enforced.

On January 21, SHI announced that it had delivered a 130,000-dwt LNG dual-fuel shuttle tanker to Teekay Offshore at its Geoje shipyard.

Aurora Spirit, the first-ever LNG dual-fuel shuttle tanker delivered to date, emits 85% less SOx, 98% less NOx, and 98% less particulate matter compared to ships powered by conventional fuels while meeting the IMO target of reducing carbon (CO_2) emissions.

This next-generation tanker, the cleanest ever built, is capable of running on volatile organic compounds (VOCs) vented into the atmosphere from tanks during loading and voyage by fully capturing them for reuse as an alternative fuel.

ERMA FIRST BWTS fit obtains USGC type approval for BWTS using hydac filters

Obtaining the USCG Type Approval in October 2017, under Lloyd's Register (LR) as an Independent Laboratory (IL), made ERMA FIRST the first full flow electrolysis BWTS vendor worldwide to have achieved such an important milestone.

In order to provide its customers with more options, ERMA FIRST now offers a third filter alternative, adding HYDAC filters to its range of options.

On the 13th of February 2020, ERMA FIRST obtained a new USCG Type Approval for the series of HYDAC filters with Certificate number 162.060/6/3; presented in the official USCG website; follow Approved BWMS and Status of Applications Section and applied to the whole range of ERMA FIRST Models 75-3000 with the three options of Filters, FILTERSAFE, FILTREX and HYDAC.

The results with the HYDAC filter configuration were successful too and in compliance with the USCG requirements. Tested in three water salinities, ERMA FIRST BWTS FIT offers a reliable, simple and effective solution for all types and sizes of vessels. The smooth testing process proves that the system has been carefully designed, developed and engineered to undergo the most rigorous testing and ensure reliable operation in the most challenging natural water conditions.

Mr. Stampedakis, Managing Director of ERMA FIRST commented, "Filtration is a necessary treatment stage which ensures environmental compliance despite the water quality and reduces significantly the wear and tear of the essential parts of the system. In ERMA FIRST we strive to provide our customers with superior Ballast Water Treatment solutions that will meet their needs in full. We planned this for a while, and we are glad that we will be in a position to further expand our production capacity so as to cover the market's needs."

ERMA FIRST BWTS FIT is flexible, modular and project-specific suitable for all special installation requirements in both new builds as well as retrofit projects. ERMA FIRST's design simplicity and expertise on delivering challenging projects, has been well acknowledged by many ship-owners and operators worldwide, who have already trusted the company with their BWTS installations.

DRIVELINE
Halifax Manufacturing Facility

SPECIAL PRODUCTS VISCOUS DAMPERS

Formerly metaldyne

MAINTENANCE AND REPAIR OF VIBRATION DAMPERS

IS YOUR CRANKSHAFT DAMPER PROVIDING ENGINE PROTECTION?

DNV·GL
Certificate number: TAM00000M7 Rev: 1

DRIVELINE
Halifax Manufacturing Facility

Formerly metaldyne

AAM Driveline
Service Department
131 Parkinson Lane, Halifax,
West Yorkshire, HX1 3RD, England
Tel: +44 (0)1422 357234 Fax: +44 (0)1422 354432
www.metaldyne.co.uk
DamperService.Hemf@aam.com

Energy and Natural Resources

Edited by:
Giannis Theodoropoulos

Rosneft signs contract with Indian Oil to supply 2 million tonnes of oil to India

Rosneft Oil Company and Indian Oil Corporation Limited (IOCL) signed a contract to supply up to 2 million tonnes of oil to India via the port of Novorossiysk by the end of 2020.

The signing took place during the visit of the Chief Executive Officer of Rosneft Igor Sechin to New Delhi. During this visit, a working meeting was also held with Dharmendra Pradhan, Minister for Petroleum and Natural Gas of India.

An important subject of talks between Sechin and Pradhan was the issue of providing Indian consumers with quality crude and petroleum-based products, including increasing in Russian oil supplies to India. During the meeting, the parties discussed the ongoing joint projects of Rosneft and Indian companies, including Sakhalin-1, Taas-Yuryakh, the Vankor cluster (a consortium of Indian companies owns 49% in the Vankor cluster field), Far East LNG, and Nayara Energy.

A separate topic of discussion was the matter of Indian companies' participation in implementing the Vostok Oil project aimed to establish a new world-class oil and gas province on the North of Russian Krasnoyarsk Territory. As Dharmendra Pradhan said, the Indian side has already made a principal decision to participate in the project. In order to negotiate the terms of Indian companies' entering Vostok Oil in the shortest time possible, the parties agreed to create a regular working group of representatives of Russian and Indian companies.

ADNOC awards US$1.65 billion contracts for construction of offshore facilities

The Abu Dhabi National Oil Company (ADNOC) announced recently the award of two contracts for the construction of offshore facilities for the Dalma Gas Development Project located about 190 kilometers northwest of Abu Dhabi city. The Dalma project is a key part of the Ghasha ultra-sour gas concession which is central to ADNOC's strategic objective of enabling gas self-sufficiency for the United Arab Emirates (UAE).

The two Engineering, Procurement and Construction (EPC) contracts have a total value of over $1.65 billion (AED 6.06 billion) and were awarded to Petrofac Emirates LLC (Petrofac) and a joint venture between Petrofac and Sapura Energy Berhad (Sapura Energy) through its subsidiary's branch office in Abu Dhabi. Both contracts are expected to be completed in 2022 and will enable the Dalma Gas Development project to produce around 340 million standard cubic feet per day (mmscfd) of natural gas.

Seventy percent of the total award value will flow into the UAE's economy under ADNOC's In-Country Value (ICV) program, reinforcing ADNOC's commitment to maximizing value for the UAE as it delivers its 2030 strategy.

Eni: A new oil discovery offshore Mexico

Eni announced a new oil discovery on the Saasken Exploration Prospect in Block 10, located in the mid-deep water of the Cuenca Salina in the Sureste Basin, Offshore Mexico. According to preliminary estimates, the new discovery may contain between 200 and 300 million barrels of oil in place.

Saasken-1 NFW well, which has led to the discovery, is the sixth consecutive successful well drilled by Eni offshore Mexico in the Sureste Basin. It is located approximately 65 kilometers off the coast, and was drilled by the Valaris 8505 Semisub in a water depth of 340 meters and reached a total depth of 3,830 meters.

Saasken-1 discovered 80 meters of net pay of good quality oil in the Lower Pliocene and Upper Miocene sequences. The reservoirs show excellent petrophysical properties. An intensive data collection has been carried out on the well, and the data acquired indicate a production capacity for the well of more than 10,000 barrels of oil per day.

The discovery is opening a potential commercial outcome of Block 10 since several other prospects located nearby may be clustered in a synergic development. The Block 10 Joint Venture, composed by Eni (operator with a 65% stake), Lukoil (20%), and Capricorn (15%) will work to appraise the discovery and to exploit nearby synergies in order to start the studies for commercial development.

Mexico is a core country in Eni's strategy of future organic growth. The company is currently producing approximately 15,000 barrels of oil equivalent per day (boed) from Area 1 and expects to reach a plateau of 100,000 boed in the first half of 2021. Eni is also planning an important exploration campaign in the other licenses held in Mexico.

Global demand for LNG to double by 2040

Global demand for liquefied natural gas, or LNG, grew by 12.5% to 359 million tonnes in 2019, a significant increase that bolsters LNG's growing role in the transition to a lower-carbon energy system, according to the Shell LNG Outlook.

Europe absorbed the majority of 2019 supply growth as competitively-priced LNG furthered coal-to-gas switching in the power sector and replaced declining domestic gas production and pipeline gas imports. There was a modest rise in imports to Asia in 2019, compared to the previous two years, a result of mild weather and rising electricity generation from nuclear power in Japan and South Korea, two of the three largest global importers.

In the short-term, supply growth is expected to slow down as the last of the new LNG projects under construction will be completed by 2021, restoring equilibrium.

Longer-term demand is expected to double to 700 million tonnes by 2040 according to forecasts, spurring confidence in the role of gas in shaping a lower-carbon energy system.

IEA: Global carbon dioxide emissions flatlined in 2019

Global energy-related CO_2 emissions flattened in 2019 at around 33 gigatonnes (Gt), following two years of increases. This resulted mainly from a sharp decline in CO_2 emissions from the power sector in advanced economies, thanks to the expanding role of renewable sources (mainly wind and solar PV), fuel switching from coal to natural gas, and higher nuclear power output.

Global CO_2 emissions from coal use declined by almost 200 million tonnes (Mt), or 1.3%, from 2018 levels, offsetting increases in emissions from oil and natural gas. Advanced economies saw their emissions decline by over 370 Mt (or 3.2%), with the power sector responsible for 85% of the drop. Milder weather in many large economies compared with 2018 had an important effect on the trends, reducing emissions by around 150 Mt. Weaker global economic growth also played a role, moderating the increase in emissions in major emerging economies such as India.

Emissions trends for 2019 suggest clean energy transitions are underway, led by the power sector. Global power sector emissions declined by some 170 Mt, or 1.2%, with the biggest falls taking place in advanced economies where CO_2 emissions are now at levels not seen since the late 1980s (when electricity demand was one-third lower).

Phishing penetration test measures crew vigilance

GTMaritime is now offering a penetration testing service free of charge which allows customers to evaluate the ability of their personnel to identify phishing attacks

Shipping companies choosing GTMailPlus and other solutions from the GTMaritime portfolio are employing best-in-class technology to prevent the vast majority of phishing attempts from ever reaching crew. But threats are continually evolving: hackers are constantly trying to come up with new ruses to outwit software-based protections, and occasionally malicious messages can slip through.

For this reason, crews cannot afford to become complacent in the belief that, with a technological safety net in place, everything that trickles down to their inbox is trustworthy and can be taken at face value. On the contrary, they must remain vigilant: the few malicious messages that do reach human eyes will have a higher than average chance of resembling an authentic request and may employ advanced social-engineering techniques which make them harder to recognise.

Quality ship operators understand this and take a holistic approach to cyber defence. To supplement the work done by technological tools such as GTMailPlus by GTMaritime, they routinely offer staff training on what to look out for and ensure they stay ever alert to the dangers.

Last autumn, GTMaritime started offering a penetration testing service free of charge to its shipping company customers. The service involves sending a selection of crafted spoof phishing messages to crew to test for alertness and for response. These realistic but ultimately harmless simulated attacks offer an effective way of gathering quantitative evidence on the alertness of the frontline staff most exposed to hoax emails.

Test results were surprising

GTMaritime completed a two-round penetration test for an established shipping company.

For the initial test, the vessel operator in question chose to send one spoof message appearing to come from a Port Authority requesting basic identifying information about the vessel and its owner. Sixteen ships, comprising a mix of tankers, bulk carriers, and managed vessels, were selected for the exercise. Half correctly identified the message as a phishing attempt and ignored it, but half complied with the request and supplied the information asked for. Of the latter group, in no case was the message escalated to management for a second opinion or advice on how to proceed.

To determine if the same result would be found if more detailed information was requested, a second test was employed.

This time the message that supposedly came from a port authority had a personalised subject line that mentioned the target vessel's name and IMO number. There is mounting evidence of cyber criminals including references to familiar people or organisations, adding a veneer of authenticity that encourages the targeted recipient to lower their guard.

The rogue message went on to request a crew list, cargo declaration (or, if in ballast condition, intended cargo and loading port if known), whether armed guards were on board or had been over the past three months (and name of security company engaged) and other information.

The response to this second test showed a marked improvement over the first. Eight recipients immediately detected something was amiss and ignored the request. Encouragingly, three more were now suspicious enough to escalate the approach to the head office for guidance on how to proceed. Head office personnel were kept in the dark about the test but reacted correctly, advising vessels not to send any data and also alerted the IT department.

Even so, five vessels still obligingly followed the instructions in the message without properly considering either the safety or commercial ramifications of such particulars falling into the wrong hands.

The testing resulted in heightened awareness and enhanced procedures

Following the penetration tests, GTMaritime provided the vessel operator with educational materials for both staff and IT personnel. The operator took an enlightened view to the results, seeing them as an opportunity to learn rather than apportion blame. It later shared the full findings in a company-wide security bulletin in the hope that using real data rather than hypothetical scenarios to present the dangers would drive home the need for vigilance.

At GTMaritime, we believe that technological and human components are equally important in developing cyber-resilience. While customers can rely on us to handle the technical defences, the exercise described above plainly demonstrates the usefulness of penetration testing in bringing to light and addressing the human element.

GREEK ISLANDS | CYPRUS | EGYPT | ISRAEL | TURKEY

Celestyal Cruises

EVERY MOMENT IS A DESTINATION

A cruise with Celestyal Cruises is an unforgettable experience. Because it takes you not only to all the must-see destinations but also to all the hidden gems of Greece, while enjoying overnight stays in Mykonos and Santorini on selected itineraries.

Awarded by the world-renowned Cruise Critic platform with Best Service & Best Value awards for the excellent services on board and the more intimate experience of our mid-sized vessels, the Celestyal All-Inclusive Experience is certified to offer you the best Greece has to offer in one single price, with no extra charges.

CRUISERS' CHOICE cruisecritic ★★★★★ 2018

cruisecritic EDITORS' PICKS 2018 Celestyal Cruises Best Service

celestyalcruises.com

In need of an urgent repair?

Short delivery time together with a unique shaft repair technique has put Danish company MarineShaft on the world map

It all started with putting a bent shaft straight without using any heating. All types of shafts from 20 mm – 1500 mm can be straightened in a purpose-built hydraulic press – and most important – as a permanent repair permission from the classification societies.

Today, MarineShaft has several hydraulic presses in their workshops in Hirtshals – always with capacity for urgent repairs.

Even a minor bend on a propeller shaft can cause vibration and damage to a vessel.

MarineShaft has straightened propeller shafts with huge bends up to 1 meter out of line, but most of the bends are minor and not visible to the eye.

Short delivery time

A shaft can be straightened within 48 hours – depending on the size of the shaft and the damage. But the delivery time is a big cost-saver for the vessel owner and one of the reasons why shafts are sent to MarineShaft's workshop in Denmark from all over the world. The delivery time for manufacturing a new shaft can be very long.

New Manufacturing

However, speaking of manufacturing, MarineShaft wants to be among the best and fastest suppliers. Therefore, MarineShaft decided to invest in a huge stock of material right outside the workshop, ready to be taken into the workshop for machining to meet any request from a vessel owner. Whether the inquiry is for a huge round bar, stainless steel or bronze liners in long lengths, plates etc., MarineShaft is known to have it in stock. And everything comes with 3.2 LRS certification

Complete repair solutions

MarineShaft often takes the work outside the workshop. They provide a complete repair solution including supervisor assistance, alignment services, propeller repairs and on-site machining and re-installation services.

LEAVE**YOUR**MARK

IN SHAPING A CLEANER SOCIETY

JOIN US

www.bureauveritas.com

BUREAU VERITAS 1828

BUREAU VERITAS

Marine engine lubrication goes digital with Shell

With marine two-stroke engines subject to more technical variables than ever before, the need for continuous cylinder oil monitoring has become pressing

Managing lubricating oils – luboils – onboard ships operating remotely has always presented a challenge for engineers at sea. There are the practical issues such as ensuring that the right products are available in the right quantities at ports on a schedule, or possibly holding enough reserves on board if a ship's schedule changes.

More recently, with far more sophisticated marine engines in service under changing operating parameters, the need to monitor the condition of shipboard components has become pressing, with the analysis of luboil samples a key indicator of machinery condition.

A wider mix of marine fuels, including new blends with no track record, and specific requirements by OEMs that the latest engines run on strict guidelines specified by them, is making luboil monitoring and analysis more important than ever before. Mr. Joris van Brussel, Shell Marine's General Manager, notes a recent upturn in customer interest but is expecting that "to increase significantly as soon as we start hearing about one or two challenges in the field."

Until recently, there was limited technology available for monitoring the condition of shipboard components by taking luboil samples. Now, though, with new connectivity, it is possible for samples taken on board ship in the middle of the ocean to be assessed and subsequently compared with tests undertaken ashore.

Yet many shipowners and managers have not yet adopted new systems. Luboils figure prominently in a ship's daily operating expenditure and amount to a major cost centre. With a range of new relatively untested fuels now a part of the bunker mix post IMO 2020, effective luboil management is more important than ever.

Enhanced connectivity

Until recently, seagoing staff could only carry out a limited number of tests at sea, but new connectivity means that a digital approach is possible.

"There has always been a need for luboil monitoring," Schaerer

explained to Sea Technology, "but often many ship operators haven't done it. The issue has become more acute recently. Over the last few years, the pace of new engine development has moved so fast as OEMs optimise designs for improved fuel economy, and so we see new challenges arising after new engines are introduced to the market.

When things aren't actually failing, some owners may see it as an incentive to do less sampling and testing, but to be truly effective, luboil management needs to be continuous.

In fact, "short-term" thinking was surprisingly widespread. "We recommend Shell LubeMonitor, a condition monitoring programme for two-stroke marine engines which offers access to tools and advice to help strike and maintain an acceptable balance between cylinder oil costs and wear-related maintenance expenses. However, of the two-stroke engines for which we supply products, less than a third have any monitoring at all. And by this I don't mean Shell LubeMonitor, but any standard used-oil analysis."

Monitoring and analysis essential in effective risk management

Shell Marine clients have the option of two possible services for monitoring and analysing luboil samples. The company's Shell LubeMonitor, a new version of which is set to be released any time now, is a cylinder condition monitoring system in which the data from samples taken on board ship are sent ashore via the company's Marine Connect system.

Complimentary to Shell LubeMonitor, Shell LubeAnalyst was launched in April 2019, as a new technical service which replaces Shell Marine's earlier Rapid Lubricant Analysis (RLA). Customers can log in to a portal and dashboard which provides insights into the analytical results of samples that have been sent. For example, the samples are categorized into 'Normal,' 'Action' and 'Attention' and then provide a means by which comparisons can be made with similar machinery on other ships in the fleet, for example, so that users can get better insights from the data."

Customers who previously used the RLA service have been migrated to the new set-up which is now used by about 90% of clients although this might not necessarily be on the main engine; maybe it is being used on the stern tube product and other supplementary equipment, for example.

Digital co-creation strategy a 'win-win' for everybody

Complementary to luboil analysis, Peter Decock, Commercial Manager Marine Digital for Shell Downstream Services International BV, is heading a unique project that promises to transform luboil management through a smart digital set-up called AccuPort. The system, currently completing its alpha trials, is designed to provide real-time information and complete transparency on the procurement of an increasingly complex range of luboils required by ship operators today.

Primary products for main engines and auxiliaries to secondary oils for gears, hydraulic applications and oil-to-sea interfaces, sometimes requiring environmentally acceptable products, are essential for safe ship operation. Through AccuPort, the right products will be made available in the right quantities and at the right time across a global distribution network that extends to more than 700 ports in 61 countries.

Luboils are a major cost centre and an important indicator on the longevity of main engines, auxiliaries and other shipboard plant, but Decock says that shortcomings in luboil management are rarely the fault of human beings. Rather, issues arise due to poor information.

If the right products are not available, there can be far-reaching implications, Decock points out. These sometimes involve extra time in port while last-minute luboil supplies are procured before a ship sails, or possibly require an extra port call if hydraulic oil is not available at a destination port, for example, putting ships' cranes at risk.

Aviation industry news

News from the world of aviation

Edited by:
Konstantinos Giannakopoulos

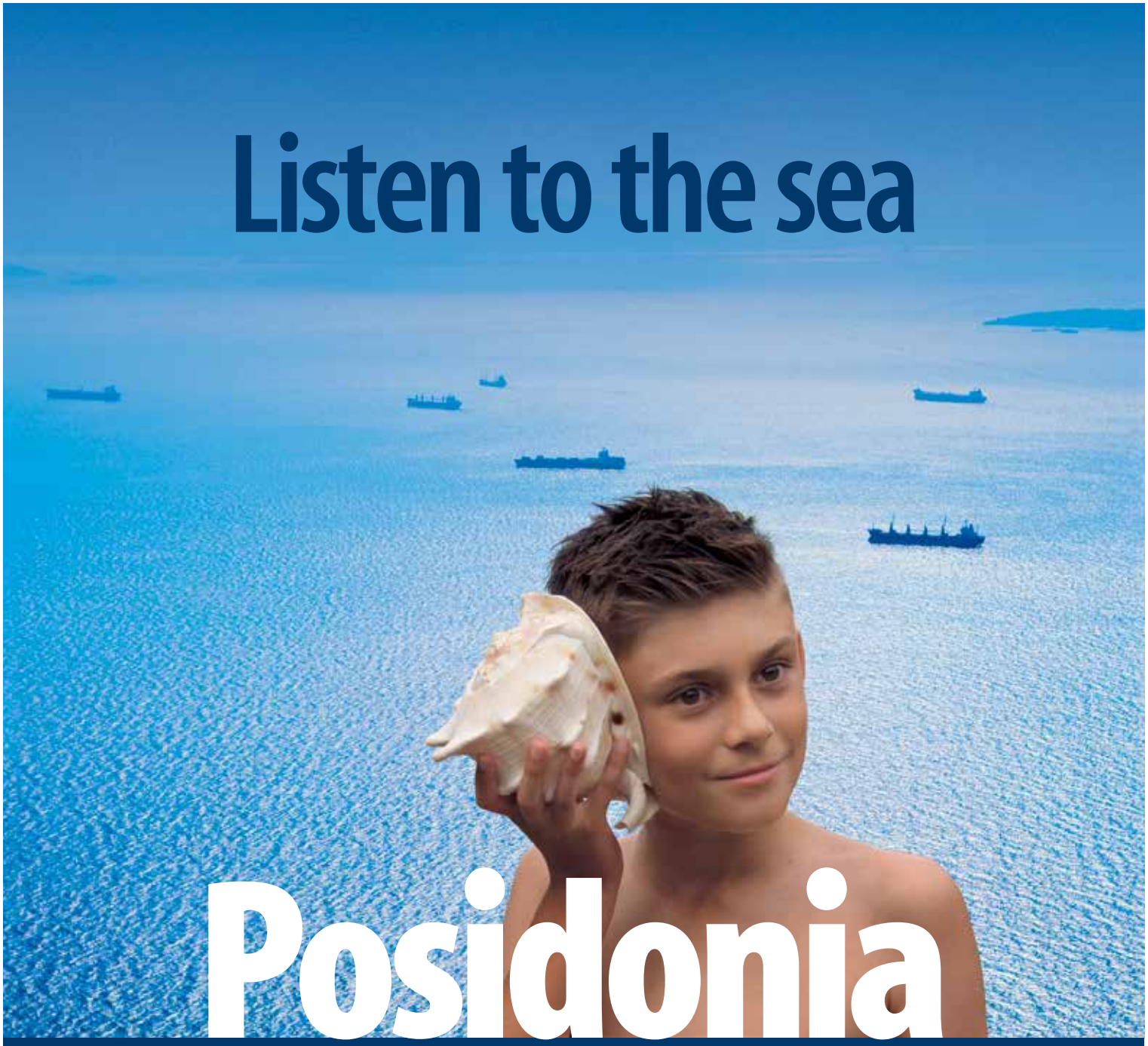
A new era of growth for Aegean Airlines

A new era of growth has begun for Aegean Airlines with the official reveal of its new livery and branding as well as the presentation of the first three new generation Airbus A320neo, equipped with latest technology Pratt & Whitney engines. Sealing a 20 years course of successful operation in Greece, Aegean Airlines sets a solid ground for the future.

During the official reveal ceremony with the attendance of the Greek Prime Minister Kyriakos Mitsotakis, stakeholders and employees, Eftychios Vassilakis, Chairman of Aegean Airlines, and Dimitris Gerogiannis, CEO, stressed that Aegean Airlines' long-lasting investment in Greece is a token of its faith in the country's potential and prospects for development. Having already expanded the initial order with 12 additional aircraft, Aegean Airlines is expected to receive by 2025 a total of a minimum 46 aircraft, A320neo and A321neo, with an option for 12 additional aircraft (up to 58 aircraft). This is the largest private investment in Greece, valued at $2,5-3bn at market prices ($6-6,5bn at list prices). For the next 6 years, Aegean Airlines will invest more than $500mn per year for the expansion and modernization of its fleet. Until July 2020, Aegean Airlines will receive a total of 6 new aircraft reaching a fleet of 65 aircraft, adding 1.5 million seats (19 million seats in total for the year) and supporting the expansion of its network in 155 destinations and 44 countries in 2020.

During his speech, Greek Prime Minister Kyriakos Mitsotakis underlined the value of the investment for Greece, stating: "The Greek government actively supports companies that focus on cutting-edge technology, respect their employees and adopt sustainable growth practices. It is then that their own growth becomes value for society. Aegean Airlines combines vision with reason and while flying, remains grounded. This is an attribute that the country needs, especially from Greek companies".

Aegean Airlines CEO Dimitris Gerogiannis, highlighted the significance of the investment, reiterating the company's commitment to on-going growth. "2020, signifies a new beginning, with a new dynamic, new potential, and a new identity for Aegean Airlines. The next 24 months will be extremely creative for us since we will design our renewed product offering. For all of us, the new aircraft represents primarily a platform that enables our people to work consistently towards creating a better travelling experience for our passengers", he mentioned.



1-5 June 2020

Metropolitan Expo, Athens Greece

Posidonia Ποσειδώνια

The International Shipping Exhibition

Organisers: **Posidonia Exhibitions SA,** e-mail: posidonia@posidonia-events.com

www.posidonia-events.com

IATA's gloomy yet reasonable forecasts for the aviation industry

The International Air Transport Association (IATA) updated on March the 5th its analysis of the financial impact of the novel coronavirus (COVID-19) public health emergency on the global air transport industry. IATA now sees 2020 global revenue losses for the passenger business of between $63 billion (in a scenario where COVID-19 is contained in current markets) and $113 billion (in a scenario with a broader spreading of COVID-19). No estimates are yet available for the impact on cargo operations.

IATA's previous analysis (issued on 20 February 2020) put lost revenues at $29.3 billion based on a scenario that would see the impact of COVID-19 largely confined to markets associated with China. Since that time, the virus has spread to over 80 countries and forward bookings have been severely impacted on routes beyond China. According to IATA financial markets have reacted strongly. Airline share prices have fallen nearly 25% since the outbreak began, some 21 percentage points greater than the decline that occurred at a similar point during the SARS crisis of 2003. To a large extent, this fall already prices in a shock to industry revenues much greater than IATA's previous analysis.

Delta commits $1 billion to become first carbon-neutral airline globally

Starting March 1, 2020, Delta Air Lines is committing $1 billion over the next 10 years on its journey to mitigate all emissions from its global business going forward. The airline will invest in driving innovation, advancing clean air travel technologies, accelerating the reduction of carbon emissions and waste, and establishing new projects to mitigate the balance of emissions.

"There is no substitute for the power that travel has to connect people, which our world needs today more than ever before. As we connect customers around the globe, it is our responsibility to deliver on our promise to bring people together and ensure the utmost care for our environment," said Ed Bastian, Delta's CEO.

The aviation industry accounts for roughly 2 percent of global carbon dioxide emissions. Delta's carbon footprint is its largest environmental impact, with 98 percent of emissions coming from its aircraft.

Delta's carbon strategy will account for emissions across its business – both in the air and on the ground. Delta's investment will create new projects and methods to reduce its carbon footprint, benefit global communities and make it easier for other organizations to explore similar options to address their own carbon footprints – all while minimizing reliance on today's limited carbon offset markets. To support this strategy, Delta will allocate some of its financial commitment into investment vehicles, including a dedicated fund focused on achieving its carbon-neutral ambition.

Boeing Forecasts $1.5 Trillion for Commercial Airplanes and Services in Southeast Asia Over the Next 20 Years

Boeing forecasts airlines in Southeast Asia will need 4,500 new airplanes over the next 20 years, valued at $710 billion at list prices. Single-aisle airplanes continue to be the main driver of capacity growth in Southeast Asia. This growth helps to stimulate the demand for commercial aviation services, which are forecasted to be worth $785 billion between 2019 and 2038.

"Three countries from Southeast Asia – Vietnam, Thailand, and Indonesia – made the top 10 list of countries that added the most airline seat capacity since 2010. Vietnam has experienced the strongest growth out of the three at nearly 15% per year, followed by Thailand and Indonesia at approximately 10%, respectively," said Randy Tinseth, vice president of Commercial Marketing at Boeing. "With an expanding middle-class, in a market that continues to liberalize, coupled with a strong domestic, regional, and international tourism sector, Southeast Asia has become one of the world's largest aviation markets."

While single-aisle airplanes dominate the forecast, this region will also require a significant amount of widebody airplanes, in terms of value and the number of units. The demand is driven by airlines adapting to the evolving business environment and new long-haul expansion opportunities. Widebody airplanes will make up 19% of new airplane deliveries, enabling carriers in the region to serve new international long-range city pairs.

Aviation growth in the region is expected to drive the need for 182,000 commercial pilots, cabin crew, and aviation technicians to fly and to maintain the airplane fleet across Southeast Asia. This demand is projected based on a mix of new airplane deliveries, annual aircraft utilization rates, crewing requirements by region, and regulatory requirements.

Worldwide, Boeing projects the need for 44,040 new commercial airplanes valued at $6.8 trillion and the demand for aftermarket services totaled at $9.1T over the next 20 years.

GOLDEN CARGO

MARITIME LOGISTICS

Our mission is
to provide value in all that we do.

We believe in offering long-term relationships with our clients through our superior service, making sure your cargo reaches its destination intact, by **air**, **sea** or **road**, efficiently and independently of any special needs.

hellmann Worldwide Logistics

ISO 9001:2008 QUALITY ASSURANCE

AEO

Lufthansa Cargo Networking the world.

Golden Cargo SA:
8, Aegaleo Str., 185 45 Piraeus, Greece |
T: +30 210 4061 100 | **F:** +30 210 4061 111 | **E:** goldencargo@goldencargo.gr

"Go Maritime"

The new generation of Greek seafarers talks with the shipping community in Athens

Once again, the Isalos.net initiative organized this year a one-day conference for students of the country's Maritime Academies, who met with representatives of shipping companies and educational institutions at the hospitable venue of the Eugenides Foundation. The participation and interest of young students exceeded all expectations.

The "Go Maritime" conference, held on Saturday 25 January 2020, was organized by Isalos.net,while media sponsor of the event was *Naftika Chronika*. It attracted the interest and active participation of more than 600 students from Maritime Academies of Aspropyrgos, Epirus, the Ionian Islands, Kalymnos, Kymi, Oinousses, Syros, Hydra, Chios, the Metropolitan College-Warsash Maritime Academy, and TEENS students, as well as 70 companies, 31 of which were present with special stands.

The "Go Maritime" conference, which was organized with the valuable support of the Seafarers Training Directorate of the Hellenic Ministry of Shipping and Island Policy and the administrations and management of the participating Merchant Marine Academies, included three thematic panels and three workshops where 22 participants aired their views on current issues such as the adaptation of cadets during the first training voyage, the main differences between the different types of vessels, life onboard and the particularities of the bridge, the current and future challenges of the maritime profession, as well as health and safety at sea. Furthermore, the Maritime Academies freshmen were able to pose questions to both the speakers - during the panel discussions - and the shipping companies executives who were located in a specially designated area.

Opening addresses were given by The President of the Eugenides Foundation and International Maritime Organization (IMO) Maritime Ambassador to Greece Dr. Leonidas Dimitriadis-Eugenides, and the Minister of Shipping and Island Policy Ioannis Plakiotakis.

Welcoming the first-year students, Dr. Leonidas Dimitriadis-Eugenides emphasized the importance of being aware of the opportunities offered by the maritime profession, pointing out that soon they would also be ambassadors of our country in all the ports of the world.

During his speech, the Minister of Maritime and Island Policy announced the government's plan, which focuses on Greek shipping maintaining the first position by preserving Greek seamanship while he also noted the need to invest in public maritime education. The Minister did not fail to emphasize that the aim of the Ministry of Shipping and Island Policy is to make the maritime profession attractive.

Panel 1

The Minister of Shipping and Island Policy, Ioannis Plakiotakis

Panel 2

The President of the Eugenides Foundation and International Maritime Organization (IMO) Maritime Ambassador to Greece, Dr. Leonidas Dimitriadis-Eugenides

Panels for students of the Merchant Marine Academies / Deck Officers

Panel 1: First voyage as a cadet on a bulk carrier

Capt. **Kostas Karavasilis**,
Senior Loss Prevention Executive, Thomas Miller P&I Club

Kostas Katsoulieris,
Senior Executive (Claims), North of England P&I Club

Mary Kresta,
General Manager, Tototheo Maritime Greece

Capt. **Markos Bisbikos**,
Alpha Bulkers Shipmanagement

Capt. **Dimitris Datsios**,
Polembros Shipping

Capt. **Panagiotis Christopoulos**,
Carras (Hellas) S.A.

Capt. **Barbara Vassilopoulou**,
Diana Shipping Services S.A.

Panel 2: First voyage as a cadet on a tanker

Capt. **Dimitrios Dimitrellis**,
Euronav Shipmanagement

Vasilios Kakamoukas,
Claims Manager, The Britannia Steam Ship Insurance Association Ltd.

Capt. **Aris Pasadaeos**,
Pantheon Tankers Management

Capt. **Antonios Skoufias**,
Kyklades Maritime Corporation

Capt. **Nikolaos Stavrakakis**,
Springfield Shipping Co.

Capt. **Apostolos Triantafyllidis**,
Maran Gas Maritime Inc.

Moderator: Capt. George Georgoulis, Isalos.net


Stavros Hatzigrigoris, Maran Gas Maritime Inc.


Evangelos Sfakiotakis, TMS Tankers Ltd.


Panel 3


Alexander Koimtzoglou,
VENLYS Maritime Specialization Services

Panels for students of the Merchant Marine Academies / Engineering Officers

Panel 3: First contact with the engine room

Capt. **Theodoros Lalas**,
Fleet Operations Manager, International Registries, Inc.

Aristides Patsialos,
Ist Engineer, Carras (Hellas) S.A.

Dimitrios Salioras,
Ist Engineer, Alpha Bulkers Shipmanagement Inc.

Michalis Spanos,
Ist Engineer, TMS Tankers Ltd.

Nikolaos Tsamadis,
Ist Engineer, Polembros Shipping

Moderator: Vasilios Kakamoukas, Claims Manager,
The Britannia Steam Ship Insurance Association Ltd.

Workshops

The challenges of the engine room in 2050
Evangelos Sfakiotakis,
Technical Manager, TMS Tankers Ltd.

The particularities of LNG carriers
Stavros Hatzigrigoris,
Maran Gas Maritime Inc.

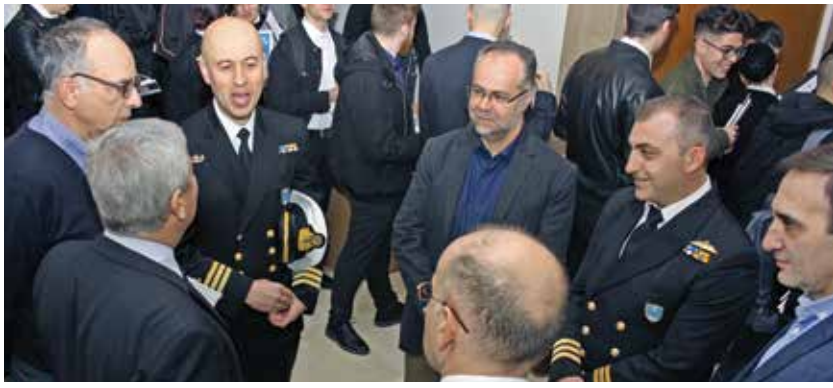
The human factor and safety culture onboard
Alexander Koimtzoglou,
R&D Project Manager, VENLYS Maritime Specialization Services

KYKLADES MARITIME CORPORATION

M/T NISSOS RHENIA
318,744 dwt, BUILT 2019, Hyundai Heavy Industries Co., Ltd

Moving forward with Confidence

Ethnarchou Makariou Av, & 2 D. Falireos Str.
18547 Neo Faliro, Piraeus, Greece
T: +30 210 4804200 | F: +30 210 4818210 | E: crew@kykmar.gr
www.kykmar.gr



MARAN GAS MARITIME INC.

Join us and explore the world!

216 - 226, DOIRANIS STR., GR - 17674, ATHENS, GREECE
TEL: +30 (213) 007 6500 | FAX: +30 (210) 948 0023
EMAIL: mail@marangas.com

Snapshots from the stands of participating companies and institutions


TMS Cardiff Gas Ltd./ TMS Tankers Ltd.


Marichem Marigases Worldwide Services


Alba Graduate Business School


Seaven


Britannia P&I Club


Euronav Ship Management (Hellas) Ltd.

Andriaki Shipping Co. Ltd

" BE OUR PARTNERS IN SAFETY
AND IN OUR QUEST FOR EXCELLENCE "

- *Long Tradition*
- *Modern Fleet of Tankers*
- *Strong commitment to our people*
- *The right choice for a successful career at sea*

Learn more/ Send your CV to: www.andriaki.gr
9, Fragoklissias str, 151 25 Maroussi, Greece
Tel: 2106152300 / 2106152400


Atlantic Bulk Carriers Management Ltd.

GasLog LNG Services Ltd.

The Tsakos Group


Carras (Hellas) S.A.

Marine Tours

Product Shipping & Trading S.A.


Polembros Shipping Limited


Springfield Shipping Co Panama S.A.


UK P&I Club - Thomas Miller


Andriaki Shipping Co. Ltd.

Ocean Freighters Ltd.


SQLearn

Sealink Navigation Ltd.


Latsco Shipping Ltd.

North of England P&I Club


Costamare Shipping Company S.A


Kyklades Maritime Corporation


Diana Shipping Inc.

POLEMBROS SHIPPING

In Pursuit of Excellence

Η Polembros είναι μια από τις κορυφαίες εταιρίες διαχείρισης πλοίων με περισσότερα από 40 χρόνια εμπειρία στην μεταφορά πετρελαίου και χύδην ξηρού φορτίου και απόλυτη αφοσίωση στην ασφάλεια και την αποτελεσματικότητα.

· Συνεχώς αναπτυσσόμενος, σύγχρονος στόλος - πλοία υπό Ελληνική σημαία
· Φιλικό, ασφαλές περιβάλλον εργασίας με υψηλά επίπεδα διαβίωσης εν πλω
· Συνεχής επιμόρφωση ναυτικών και δυναμικό πρόγραμμα κατάρτισης δοκίμων
· Ανταγωνιστικές αποδοχές και προοπτικές γρήγορης ανέλιξης

Επικοινωνήστε μαζί μας τηλεφωνικώς ή στέλνοντας την αίτηση σας μέσω της ιστοσελίδας μας.

Λεωφόρος Ποσειδώνος 57Α • Μοσχάτο 18344 • Αθήνα • +30 2104580300 • www.polembros.gr


S. Livanos Hellas S.A


Maran Tankers Management Inc.


Maran Dry Management Inc.


Maran Gas Maritime Inc.


Pantheon Tankers Management Ltd.

Alpha Bulkers Shipmanagement Inc.

City University of London

The Isalos.net initiative and educational events are sponsored and endorsed by (as of I/3/2020):

Tradition of Excellence

Fafalios Shipping SA

Akti Miaouli 35- 39, Piraeus 185 35, Greece
T: +30 210 4292268
F: +30 210 4292271
E: admin@fafalios.gr

www.fafalios.gr

CENTRAL GROUP

BUILT TO LAST

25 TANKER VESSELS ORDERED IN THE LAST 5 YEARS

100% HUYNDAI BUILD FLEET

100% ECO ENGINES FLEET

100% BALLAST WATER TREATMENT

100% SISTER VESSELS (PER SIZE)

100% ORDERED NEW BY OUR GROUP

100% ULTRA HIGH SPEC

100% ECOLOGICAL FEATURES AVAILABLE AT THE TIME OF BUILT

56% SCRUBBER FITTED

IN EXCESS OF $3.0M EXTRAS FLEET AVERAGE ON TOP OF YARD'S SPECS

centralgroupinc.com