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First Ever Initiative for Women Seafarers in India

International Women Seafarers Foundation Launched for smooth sailing of Women Seafarers

Mumbai, 3rd Nov, 2017: The International Women Seafarers Foundation (IWSF) trust, was launched today at Mumbai by the Indian women seafarers with honorable DG Shipping as Chief Guest and in presence of stalwarts of the shipping industry. Dr Mrs Sujata Tolani (Owner Tolani Shipping Ltd), Capt Ashok Mohapatra (Director of Safety Council, IMO) and and Mr Pradeep Rawat (Chairman, National Shipping Board) graced the occasion as the guest of honour.

The IWSF visions to promote and support women seafarers in their sailing profession. The foundation aims to assist companies' in bridging policy gaps for women seafarers on board and help government and institutions in promoting education and policies related to women at sea. It will also work to raise awareness in the society about women in seafaring profession and assist in conducting activities that will encourage women participation in shipping. While sharing her views with press, Ms Suneeti Bala, one of the three founding members said "Sailing women being negligible in number, have been affected by gaps in policies, procedures and general social understanding of co-existence in the confined working environment of ships. These aspects discourage aspiring women and shipping companies equally in improving female seafarer numbers over the years. In order to overcome these barriers, companies and individuals may be imparted guidance on multiple fronts by way of training, policy formulation, awareness camps, assistance and much more. "

Women's contribution to seafaring is mere 2% worldwide, amongst 1.25 million Seafarers working on 85,000 ships. The founders asserted that the efforts of IWSF would assist in balancing the much needed gender diversity on board ships. "We seek the blessings, guidance and support of shipping industry stalwarts and maritime community to achieve these objectives collectively" were the words of Capt Radhika Menon, the first Indian lady officer on board merchant ships and one of the other founding members of IWSF.

"We seek a platform of equal opportunities and employment only based on Competency " says the Third founding member Ms Sharvani Mishra .

Guest of honor Dr. Sujata Tolani, Chairperson of Tolani Shipping Said,

(contd. on page 2)

Highlights

Page

First Ever Initiative for Women Seafarers in India 1

Bibby Offshore Successfully Completes Multi-Million Pound Contract with Maersk Oil 2

From the Editor's Desk 3

IMO Enhances Support for Safe and Sustainable Ship Recycling in Bangladesh 5

Intelligent trade and technologies: Preparing for the trade facilitation of the future 6

Chevron Marine Lubricants Publishes New White Paper - Methanol and Marine Lubricants in a Lower Sulphur, Lower Emissions Future 7

Forties Pipeline Outage a Mixed Bag for Crude Tanker Market 8

lEco Marine Power to Study Use of Artificial Intelligence in Research Projects 12

IMO Assembly Adopts Vision and Strategic Directions 13

CMA CGM Completes Acquisition of Mercosul Line 16

Tanker vessel scrapping to rise further in 2018 17

Shipping industry must take 'urgent action' to meet Paris climate goals 18

Korean Shipbuilders Have Much Anticipation for Hike in Ship Prices Next Year 20

New BARECON 2017 calculates future trends 21

India to commission its first new conventional submarine after 17 years 22

ISRO to help track suspicious vessels through satellite imageries 23

(contd. from page 1)

"Congratulations to our empowered women (seafarers) who are launching International Women Seafarer Foundation (IWSF). In a world today where lady seafarers are commanding respect by virtue of their capabilities, I envision IWSF as a stepping stone to a time in which no eyebrows are raised when a daughter expresses her desire to choose seafaring as a career; to a classroom in which the girl cadets do not stand out in a classroom full of boys; to a workplace in which the male seafarer has the ability to work side by side with a female seafarer without gender becoming an issue; and finally to a society which gracefully accepts that a lady seafarer can be as competent if not more than her male counterpart and gives her the space to excel in her profession just like it has done in the medical field, the banking industry and all the other various industries. I wish IWSF all the best."

It is very important for women seafarers to get moral counseling to prepare for sailing career and a good training can prepare them well for this profession. Also the policies for women at sea need to be implemented properly and IWSF consider this as there mission to fulfill all these aspects.

Dr. Malini V. Shankar, IAS, Director General of Shipping and special secretory to Government of India graced the event and Ms. Sujata Naik Tolani, Chairperson, Tolani Shipping was guest of Honour. While appreciating this initiative by IWSF Dr. Malini said, "Women play a very important role in every aspect of life. God has gifted women with a natural ability of setting things right, wherever they lay their mind and heart. Shipping is a field where acceptance of women is seeping in rather slowly. I am glad that women seafarers have come together formally to address issues concerning them. The vast and unique practical experience and knowledge they bring in through IWSF is certain to help the industry immensely and encourage interested women to participate actively in maritime industry".

A sailing career is highly rewarding and satsfying profession and opens a plethora of opportunities for future growth ashore. But, the question is would anyone consider their daughter to choose seafaring as a profession? At IWSF it's our mission to make all those answers YES.

Bibby Offshore Successfully Completes Multi-Million Pound Contract with Maersk Oil

Bibby Offshore, a leading subsea services provider to the oil and gas industry, has successfully completed a multi-million pound contract with Maersk Oil UK, providing both subsea structure and pipeline inspection support in the UKCS.

The four-week campaign, completed in October this year, saw Bibby Offshore's subsea support and construction vessel, Olympic Bibby, operate across Maersk Oil's Gryphon and Dumbarton fields. The workscope was also supported by Bibby Offshore's project management team based in Westhill, Aberdeen.

Barry Macleod, UKCS managing director at Bibby Offshore, said: "Securing this contract was a direct result of work we previously carried out for Maersk Oil, and demonstrates the company's confidence in our ability to successfully, and safely, deliver efficient services.

"We believe this agreement is a vote of confidence for the UK North Sea and the strategy of Maximising Economic Recovery. It offers proof that the industry's competitiveness is starting to provide results."

About Bibby Offshore

Bibby Offshore is a leading provider of subsea installation and IRM services to the offshore oil and gas industry. The company offers an integrated service portfolio to a diversified client and contract base; including project management, engineering, procurement and subsea intervention services to construct, maintain and extend the life of subsea oil field. It is headquartered in Aberdeen with regional offices in Newcastle, Norway, Singapore, Trinidad and Houston, USA. www.bibbyoffshore.com.

Bibby Offshore is part of Bibby Line Group, a diverse and forward-looking family business delivering personal, responsive and flexible customer solutions for over 200 years.

Bibby Line Group is a £1.2 billion business, operating in more than 20 countries and employing over 4,500 people in industries including retail, offshore, financial services, distribution, shipping, marine based businesses and plant and site equipment hire.

From the Editor's Desk

Words are the tools of 'to be' of expression. They are completely built on the fact that you 'are', and in order to express it, you have built a little alphabet, and you make your words from it. **– Marcel Duchamp**

Late in life the English poet, novelist, essayist, and social justice advocate Sir Stephen Spender asked artist David Hockney to draw each letter of the alphabet, then invited twenty-nine of the greatest writers in the English language to each contribute a short original text for one of the letters. Among them: Susan Sontag, Seamus Heaney, Martin Amis, John Updike, Joyce Carol Oates, Ted Hughes, Ian McEwan, Erica Jong, Kazuo Ishiguro, and Iris Murdoch. The result was the 1991 out-of-print Hockney's Alphabeta sublime addition to the canon of imaginative alphabet books, with all proceeds going toward AIDS research and care for people living and dying with AIDS. Enjoy those available here on Brain Pickings! Be The Change Iris Murdoch sees C as warm and friendly. Susan Sontag is inspired by Weather for W, always changing. Join together with a few friends to playfully assign a nature to each letter of the alphabet. Friendship with one's self is all important, because without it, one cannot be friends with anyone else in the world. Eleanor Roosevelt - The Benefits of Learning to Be Kind to Yourself: "Human beings are the only creatures, who can make themselves miserable. Other social animals certainly suffer when they experience negative events, but only humans can induce negative emotions through self-view, judgments, expectations, regrets and comparisons with others.

- Because self-thought plays such a central role in human happiness and well-being, psychologists have devoted a good deal of attention to understanding how people think about themselves." Here, Mark Leary, Professor of Psychology and Neuroscience at Duke University, shares some key scientific research on self-compassion, citing its wide-reaching benefits -- ranging from university students to those afflicted with disease to the elderly -- offering some revelations on being kind to oneself, and take-aways for what we can each do to boost our own well-being. (24236 reads). Communications challenges: Intimidation in our courtrooms It's nearly 70 years since Aldo Leopold wrote A Sand County Almanac. That beautiful book remains a cornerstone in contemporary thinking around our relationship with the natural world. irishexaminer.com
- The Indian Territorial Army's role is *"to relieve the Regular Army from static duties and assist the civil administration and to provide units for Regular Army as and when required."* But as mentioned on their website, the Territorial Army allows only Male Citizens of India and Ex-service officers who are medically fit and are gainfully employed" in government jobs. This means a man who may be employed in government service or has been a legal practitioner, doctor, engineer, farmer or businessman is eligible to apply for Territorial Army leaving no scope for female ex-Service officers. WHILE the presence of Territorial Army is for civilian good, then why not allow females to be a part of it is pure misogyny. Similarly, while Merchant Navy is considered to be the second line of defence, why not consider Indian seafarers into the Territorial Army? as standby to run transport vessels of Kerala State Transport.
- At the end of solitude and man's relentless encroachments on the quietest places, like in the military area, one could reconcile ideas of solitude as compared to Today's 24/7 communications wave of

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"fire flames in rage", Defence officers envying the soldiers of the modern era, without a human touch, smashing and damaging the recruit/soldiers mobile phones. Now a days, our 'Justice System', or more appropriately and correctly, our system for Administration of Justice - faces that very same question?

- The advent of mobile phone cameras has introduced a dimension into our courtrooms that needs to be recognized, if the integrity of the process, and the safety of its participants, is to be as secure as they should be. The idea that a trial can be surreptitiously broadcast over the internet as it unfolds flies in the face of the long-established choreography that supports the hope that the law can be majestic, as well as blind. Today's 'Legislation' is again unequal to unimagined challenges brought by ever-evolving "Communications Technology" but it also seems an area where concerns can be easily allayed. A ban on the use of mobile communications, in all the courtrooms, unless specifically authorized, kept in silent-mode, might be a good opening to better the position. There is urgency about this to take advantage, for recording evidence of reality with transparency of the realities in the case as it seems only a matter of time before an important trial collapses, over this intimidator-practice, giving a more touch to empathy to the cruel happenings, of hurting sentiments.
- The imperative need of fair scrutinization, to curb the easy entry of black sheeps, with conferred IAS/IPS, the outcome of poor quality, state politics with internal disgruntlement, and such of those I.A.S./ I.P.S. conferment, to chelas of corrupted politicians, finding their ways, to their own selfish gains and needs, than curbing to a bare minimum, for an efficient outstanding performance, considering ' on merits'. Such conferred officers to be transferred compulsorily with broader outlook, joining the mainstream.

Department of Ex-Servicemen's Welfare AND/OR, The Office of the CGCDA, do not know to themselves, of the schemes to: ex-servicemen's welfare, war-widows welfare, etc. released. Lack of co-ordination between Record Offices, DESWs and CDAs, each functioning with Ego and prejudice, in the issue of Notification/Circulars, released where in practice TO ONLY confuse the ex-servicemen and not bothered thereafter of its implementation, which is in true sense OR else to respect their own words of notification. The staff and officers of District Soldiers, Sailors and Airmen's Board / Zilla Sainik Board functioning under the 30 States of the Indian Union, are also not versed with the current updates to help / assist the ex-serviceman, calling at them, which service therefore becomes mere obligatory, without commitment and accountability, nor with a sense of responsibility. Conditions are that they Lack, duty-conscious watchdogs, to oversee the public services function, for performance efficiency, by periodical quality Audit/ Inspection. Therefore certainly needs a reform, to meet to the times of modern civilization, ethically and quality norms of working practices.

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IMO Enhances Support for Safe and Sustainable Ship Recycling in Bangladesh:

The second phase of an IMO-implemented project to enhance safe and environmentally sound ship recycling in Bangladesh is set to begin in January, following a US$1.1 million funding agreement with Norway.

The two-year project will build on the first phase of the Safe and Environmentally Sound Ship Recycling in Bangladesh (SENSREC) project, which resulted in economic and environmental studies on ship recycling in Bangladesh, the development of training materials and capacity building plans and a preliminary design for infrastructure including facilities for treatment, storage and disposal of hazardous wastes generated from recycling operations.

Bangladesh is one the world's top four ship recycling countries by capacity, alongside China, India and Pakistan, which together account for 94.9% of known ship recycling in the world . Ship recycling is key for the local economy and produces large quantities of steel and other materials which are recycled and sold on.

The second phase of the SENSREC project (SENSREC Phase II - capacity building) will continue to support Bangladesh to comply with international requirements and guide Bangladesh towards accession to the IMO ship recycling treaty, the Hong Kong International Convention for the Safe and Environmentally Sound Recycling of Ships (known as the Hong Kong Convention). The Hong Kong Convention sets the international standards for ship recycling and, when in force, will ensure that ships do not pose any unnecessary risks to human health, safety or the environment when being recycled at the end of their operational lives.

The SENSREC Phase II - capacity building project will assist Bangladesh to build the capacity to develop and implement a legal, policy and institutional roadmap towards accession to the Hong Kong Convention. Also, under the project, a variety of stakeholders will be trained to lay the foundation for an effective and sustainable training programme within the ship recycling sector in Bangladesh.

"We are very pleased to be moving forwards with phase II of the SENSREC project.. The key focus of this phase will be on training and governance, to ensure safe and sustainable ship recycling," said Dr. Stefan Micallef, Director of IMO's Marine Environment Division, , adding that the comprehensive training programme would be aimed at workers in ship recycling yards, supervisors and government officials.

Two core work packages form the basis of the project. The first work package focuses on building the national capacities to prepare for accession to the Hong Kong Convention by interconnecting three activities - to assessing the present situation, exploring current best practices in other ship recycling countries and identifying recommendations and a roadmap to guide the Government of Bangladesh towards accession to the Convention.

The second work package will deliver targeted pilot training activities for a variety of stakeholders, in line with the Hong Kong Convention requirements, establish a robust training management and governance system and deliver training activities developed for various stakeholders and workforces. In addition, two training workshops, supported by the Secretariat of Basel, Rotterdam and Stockholm Conventions (BRS), will address waste management issues. IMO will act as the implementing and executing agency for the project, working closely with the Ministry of Industries of the Government of the People's Republic of Bangladesh, which will act as the national executing partner.

The project is funded by Norway's Ministry of Foreign Affairs, channelling finance through the Embassy of Norway to Bangladesh. The budget is 9 Million Norwegian Krone (approximately US$1.1 million), for the 24-month project, commencing in January 2018. The agreement between IMO and Norway on funding support was signed on 24 November 2017.

Other international partners including the Secretariat of the BRS Conventions, the International Labour

Organization (ILO) and the United Nations Industrial Development Organization (UNIDO) will also be involved.

Intelligent trade and technologies: Preparing for the trade facilitation of the future: When the negotiations on trade facilitation started at the WTO in 2004, negotiators from many developing countries were reluctant to commit their countries to "publish information on the internet". Developing countries lacked the capacity, they said, and such publication implied the need to invest in costly IT solutions.

One decade later, when the negotiations were concluded, this was much less of an issue. In fact, it can today be argued that making "Information Available Through Internet" as envisaged under the WTO Trade Facilitation Agreement that entered into force in 2017, is of particular interest to smaller traders from poorer countries as this may be the only way for them to obtain access to relevant information for their import and export activities.

Ship: Larger companies from richer countries are more likely to have the option to obtain the relevant information through their own offices or their countries' diplomatic representations in foreign markets.

Currently, the International Maritime Organization (IMO) manual for the Convention on Facilitation of International Maritime Traffic (FAL) is being revised. References to the electronic submission of data are being deleted - not because data should not be transmitted electronically, but rather because alternative transmissions are not even considered any longer.

Trade-related regulations and international agreements need to keep pace with technological developments. The negotiations, ratification and implementation of relevant conventions take time, and in view of today's fast paced technological change, the aim should be to commit to the use of whatever technological solution that is deemed feasible, adequate and fit for purpose.

Solutions to today's requirements: The application of the following Articles of the WTO Trade Facilitation Agreement is probably the more likely to be further enabled by technological improvements and progress:

Article 1 - "Publication and Availability of Information": Access to information has to be complete and immediate, be it through the internet or any other future technologies that allow for information sharing and acquisition.

Article 2 - "Opportunity to Comment, Information before entry into force, and consultations": access to information and technologies that allow relevant stakeholders to communicate and to provide views and comments on proposed legislation can support effective implementation of this provision. By the same token, Articles 5, 7 and 8 of the TFA include the need for communication and publication which can benefit from information and communication technologies.

Most provisions related to licences, declarations and clearance can be better enforced by making greater use of information and communication technologies that provide solutions to data transmissions, automation, payments, classification, and the transfer of access rights. These include above all the provisions within Article 7 on the "Release and Clearance of Goods" and Article 10 on "Formalities Connected with Importation, Exportation and Transit".

Finally, Articles 7 and 10 contain provisions, which implementation can be supported by making use of data analysis, and as such also from Artificial Intelligence (AI). Specific measures where AI could be applied are risk management, separation of release from clearance, audits, authorized operators, and the analysis of release times beyond the simple "average" that needs to be published.

Solutions to tomorrow's requirements: One-hundred years from now - and probably much earlier already - , the concept of "copies" versus "originals" as per Article 10.2 will become obsolete as processes focus on data rather than on documents. The same will apply to "information technology to support the single window" as per Article 10.4, as focus shifts to data and information on a distributed ledger.

In the long term, I believe that WTO TFA Article 10.1 will gain in importance, as it does not prescribe any specific technological solution, but rather provides for a dynamic dimension of the TFA. Progressively, various provisions will have become antiquated or obsolete and we will just want to minimize "the incidence and complexity of import, export, and transit formalities"; continuously "review" requirements; keep "reducing the time and cost of compliance for traders and operators"; and always choose "the least trade restrictive measure". For these endeavours, AI and blockchain solutions will be highly relevant.

In the current environment, I see three areas of activities that could help today's trade and its transport.

E-Commerce: Beyond the TFA, already at the WTO Ministerial Conference MC11, the multilateral negotiating agenda may be moving toward electronic commerce. The eTrade for All initiative is an important practical step to support developing countries to engage in and benefit from E-Commerce. Its modules include issues such as trade logistics and ICT infrastructure and services.

Networks: The focus of trade and trade logistics will be more and more on the analysis of networks. What matters is a country's or trader's connectivity, i.e. the position and role within a network. The Internet of Things and AI can help reduce waiting and dwell times with trucks and ships at borders and ports arriving and leaving "Just In Time" An important initiative in this context is the Global Infrastructure Connectivity Alliance (GICA).

Energy: There are concerns that distributed ledgers used

for blockchains require far more electricity than more basic, traditional IT solutions. At the same time, alternative blockchain processes requiring less computing power and electricity are under development. In addition, blockchain solutions can also be applied to the energy sector itself, where the technology can help save energy by increasing the efficiency of electrical grids and allowing local energy sharing.

Science Fiction? Decisions pertaining to the above-mentioned technologies will be considered and possibly even taken by AI. AI systems will learn and adapt faster to new challenges and technologies than humans, as newly acquired knowledge can immediately be passed on to fellow AI-endowed units - no need for schools, seminars and teaching here.

It will become increasingly important that AI systems also be taught a set of values upon which to base their learning and decisions. By way of example, already today, self-driving cars need to be taught to base decisions on pre-defined criteria - that so far are still set by their human creators.

Back to basics: Many challenges remain. The use of the Internet is still not universal, especially in many Least Developed Countries (LDCs) and remote and rural areas. In LDCs only 1 in 6 people use the Internet, and small businesses use the Internet far less than larger enterprises. UNCTAD member states attach a high priority to ICT connectivity as critical infrastructure, as well as to capacity building for the smaller and weaker economies.

UNCTAD works with developing countries and other international organizations on solutions that help facilitate trade and its transportation, encourage E-Commerce, and provide support to customs administration, port authorities, national trade facilitation committees and transport corridors. We provide technical assistance and capacity development for those who may otherwise be left out.

As the world economy and society is increasingly moving towards ever more integration through intelligent trade and information networks, we must, a) seize the opportunities of new technologies for improved trade efficiency, and, at the same, b) ensure that nobody is left behind.

Chevron Marine Lubricants Publishes New White Paper - Methanol and Marine Lubricants in a Lower Sulphur, Lower Emissions Future:

Chevron Marine Lubricants, a leading lubrication solutions provider for alternatively fueled vessels and one of the largest suppliers of marine lubricants in the world, today has released the first in a series of new white papers focusing on innovations and developments impacting the fast-changing shipping industry.

"Methanol and Marine Lubricants in a Lower Sulphur, Lower Emissions Future" explores the use of methanol bunkers, and how Chevron's Taro® Special cylinder lubricants and DOT.FAST® service play a critical role in the successful operation of M/T Mari Jone and M/T Mari Boyle, two of the world's first ocean-going methanol dual-fuel ships.

Chevron Marine Lubricants - explore low emission solutions for today, and tomorrow

The white paper has been produced in consultation with:

Vancouver, Canada-based Methanex Corporation, whose Waterfront Shipping subsidiary are co-owners and charterers of the vessels.

Private ship manager and investment group Marinvest Shipping AB, who are also co-owners of the vessels.

MAN Diesel & Turbo who produced the ME-LGI methanol dual-fuel two stroke engines for M/T Mari Jone and M/T Mari Boyle.

"The reality of a lower sulphur, lower emissions future for shipping is already here. ECA and IMO 2020 regulations mean that in addition to the shifting use trends of traditional marine fuels, shipowners and operators are increasingly turning to the use of alternative marine fuels to meet the challenges of a rapidly changing legislative and operational landscape," says Ian Thurloway, Chevron Marine Lubricants Brand and Marketing Manager.

Chevron is a leader in providing complete and reliable lubrication solutions for the all types of alternatively fueled vessels. Its full range of Taro® cylinder lubricants, from the low 25 BN Taro® Special HT LF to the new 140 BN Taro® Special HT Ultra, provide solutions for the complex operating requirements of today, and tomorrow.

Alongside the use of Chevron's Taro® cylinder lubricants, Chevron's DOT.FAST® service is used to optimise engine lubrication and manage feedrates. DOT.FAST® provides both onboard and onshore analysis of drip oil giving an accurate measurement of total iron wear, including corrosive wear. Combining both a drip oil analyzer for iron wear and a BN tester, it is the best such service in the market today.

Methanol is just one of a range of exciting alternative fuels that, along with LNG, LPG, and ethane among others, are set to play an increasingly important role in the future of shipping.

As an industry leader with one of the best supply networks in the industry and a full range of products to meet the diverse range of needs of today and tomorrow, Chevron is committed to providing reliable solutions for the marine fuels of the future.

Forties Pipeline Outage a Mixed Bag for Crude Tanker Market: ICE Brent futures surged to their highest in more than 2 years on Monday, crossing the $65/bbl mark due to the unplanned shutdown of the Forties crude oil pipeline for several weeks for repairs. The pipeline is a major artery which carries up to 450 kb/d from the North Sea to Scotland, with the Forties grade making up the largest stream in the dated Brent benchmark. The shut-in of Forties production and subsequent deferment of cargoes in the North Sea is expected to weigh on VLCC demand in the Atlantic Basin, affecting the longhaul trade to the East.

An average of 4-5 Hound Point-Far East fixtures are seen every month, with 3 fixed for December loading so far. Cargoes are typically shipped to South Korea or China. More significantly, the corresponding jump in the Brent-Dubai EFS spread to a 1.5-year high is expected to have wider implications for the crude tanker market as WAF crudes are increasingly unattractive to Asian buyers. For the VLCCs, December ex-WAF cargo volumes were fairly disappointing for owners with at least 5 fixtures failing subjects after OPEC's agreement to extend the ongoing production cuts until the end of next year. Suezmaxes trading in the Atlantic Basin may see some gains as more WAF crude likely to be diverted to Europe to meet winter demand, boosting cargo demand.

The ongoing widening of the Brent-WTI and Dubai-WTI spreads are also expected to significantly improve the economics of moving US crudes to the East. The Brent-WTI spread is currently trading at around $6/bbl, a level last seen in late September which led to an influx of US/Caribs crude moving to Asia. A potential pick-up in long-haul arb flows from the Americas to Asia and subsequent growth in ton-mile demand remains the bright spot in the depressed VLCC market although we have yet to see any jump in cargo enquiries.

Fifty years ago and today in world shipping: Some insights from maritime history: Events of half a century ago may seem remote, almost ancient history. Yet events in the global shipping markets happening in 1967, and several trends then under way, shaped the future we see today in 2017-18. Momentous changes occurring in the late 1960s merit a review of aspects of maritime history. These have some parallels in, and possible lessons for, changes currently taking place which, in turn, have implications for the next half century ahead.

What was happening in the global shipping industry fifty years ago that connects to today's markets? Some noteworthy changes were taking place, and hindsight enables these to be seen in a longer term context of trends and patterns:

liner trade containerisation affected both liner (regular services) and tramp (bulk commodity shipments) markets, because fully-cellular container ships were specialised and not interchangeable between the two markets as previous liners and tramps had been dry cargo tramp replacement:

- a perceived need to replace old Liberty ships bulk carriers (and ore carriers) displaced traditional dry cargo tramp ships
- tankers led the efficiency improvements and rapid advance in ship sizes
- combined carriers evolved into a prominent sector (eventually disappearing)
- shipping market cycles were erratic, occasionally distorted by unforeseen events
- maritime regulations after a notable tanker disaster became tighter

Containerisation onset

During the second half of the 1960s containerisation of international liner trade routes, and the fully-cellular specialised container ships required, moved from planning to initial introduction. But 'conventional' multi-deck type cargo liners with installed cargo-handling gear, for many years until then ubiquitous as standard transportation units, were still joining the world fleet.

The new late 1960s cargo liners were highly advanced technologically. A range of features had been added and steadily upgraded, such as 'deep' tanks for vegetable oils, refrigerated compartments, efficient cargo-handling gear and other equipment, and extra automation generally. These vessels were employed in an extensive trade route pattern around the world, carrying general cargo (predominantly manufactured goods in a wide variety of packaging, but also bulk cargo parcels) on regular scheduled services. More sophisticated designs and improved technology in the new ships aimed to enhance flexibility and raise productivity.

Examples are three 'Straths' joining the British P&O group in 1967. With traditional company names, Strathardle, Strathbrora and Strathconon, these 12,500 gross tons cargo liners were among the most elaborate of their type produced: better designed, faster speed, improved loading and discharging equipment, ability to carry a wider cargo range efficiently. Several more ships of this type were delivered to liner companies later.

Higher speed than previously typical for cargo liner services was a key characteristic of the new and bigger ships. An eminent maritime economist writing in the early

1960s had advocated higher speed coupled with larger carrying capacity. It was suggested that where operators were competing primarily in service quality, faster cargo liners were likely to attract more shipment volumes and therefore benefit from higher loadings than slower ships. A better choice of cargoes would enable higher freights to be obtained, improving voyage returns.

Another author observed that service speed mainly reflected service frequency provided, assuming that liner operators endeavoured to maintain a regular service with the smallest number of ships. The implications of competition with other lines engaged in the same trade were emphasised, necessitating a competitive speed to retain shippers' loyalty.

Yet all such vessels had inherent disadvantages, which could not be rectified by technological improvements. In particular the core problem, still a normal feature, was prolonged and very costly loading and discharging operations in ports, lengthening cargo delivery times. Cargo liners employed on long distance routes were often stationary in ports for up to half or sometimes as much as 60 percent of a typical total voyage duration.

General cargo was carried on cargo liners in numerous packages of many types and sizes - crates, boxes, cartons, bags, bales, bundles, casks, drums. All required individual handling and the system of loading, stowage and discharging was highly complex, lengthy and labour intensive. One improvement - using pallets to increase unit load size and incorporate some mechanisation - only partly mitigated the problem.

It was an uneconomical system needing a fundamental shakeup. There had been intensive discussion within the industry about the way to proceed. Adoption of fully containerised services, integrating sea transport with ports and land movements in 'multi-modal' systems, was seen as the radical solution. An important contribution to the debate emerged in June 1967 when management consultants McKinsey published a report entitled Containerization: The Key To Low-Cost Transport, focusing on the implications for UK ports. The report also had wider applicability to international trades.

Containerisation of international trade had begun during the previous year. The system required purpose-built fully-cellular container ships, standard size freight containers, container handling cranes and berths in ports, and direct access to road and rail links with specially designed trucks or freight wagons. In 1966 the first commercial international container service was inaugurated by Sea-Land's container ship Fairland, operating in the transatlantic trade. Sea-Land owner Malcom McLean, usually regarded as the 'father of containerisation', had started container shipping services in the US coastal trade ten years earlier.

More signs showed that the container age was evolving. A new UK consortium of liner companies, Overseas Containers (OCL) - comprising P&O, Ocean, Furness Withy and British & Commonwealth - had been formed in 1965. Two years later in early 1967 six container ships for use in the trade between Europe and Australia were ordered by OCL. These were much bigger than the cargo liners destined for replacement, approximately double the tonnage at 27,000 gt, capable of carrying 1130 standard 20-foot length containers in the holds and on deck.

Tramp replacements

In the mid 1960s there was much discussion about what would replace wartime-built Liberty ships in the global dry cargo tramp shipping sector. Many Liberties were still employed, twenty or more years after being built for a far shorter envisaged lifespan, and remained useful in numerous trades around the world. A mid-1965 estimate suggested that 800 were still trading. Later, at the end of 1967 a more precise calculation by Westinform put the number at 662 (excluding those laid-up in the US Reserve Fleet), comprising about 14 percent of the world tramp fleet.

With a rigorous 24-year survey approaching, possibly entailing heavy repair bills which might prove uneconomical, and rising maintenance costs and insurance premiums, Liberty ships were assumed in 1967 to be nearing the end of their working lives. Meanwhile, a parallel trend towards using mainly larger and more efficient bulk carriers, rather than traditional tramp ships, for many cargoes on a variety of routes, was rapidly gaining momentum. Assessing market potential for Liberty replacements had become more complex.

Before bulk carriers became a significant element, the conventional (sometime described as traditional) tramp ship was the dry cargo freight market 'workhorse'. A dry cargo tramp of between 10,000 and 15,000 gross tonnes capacity was employable in most commodity trades in the late 1960s. Its relatively small size ensured acceptability in a very wide range of ports around the world, where draft or other port or loading/discharging berth restrictions excluded larger vessels.

The second aspect of dry cargo tramps' very flexible employment patterns was, for many higher class ships (but not for old Liberty ships), charter employment in a liner service. Numerous tramps were constructed to a standard of quality, and sophistication, which was almost indistinguishable from that of the cargo liners built especially for the liner trades. These high class tramps could switch between the two markets, depending on relative profitability and what opportunities were available.

However, such flexibility was greatly curtailed when specialised container systems were introduced in liner services, from the late 1960s onwards. Container trades required dedicated fully-cellular ships built especially for that purpose. Dry cargo tramps' potential for employment in liner services was limited to routes where there was still an element of non-containerised trade, or where containerisation had not yet evolved. From the end of

the 1960s, this was a steadily shrinking market for such services provided by conventional dry cargo tramp ships.

In and around 1967 containerisation's pace over the decade or more ahead was not clear. The rapid rate of bulk carrier fleet growth was much clearer. But a distinct and substantial market appeared to prevail for dry cargo tramps, hence the continuing interest in new versions which could replace old Liberties. Several designs became prominent. One was the 13,600 gross tons 'Freedom' offered by Japanese shipbuilders IHI, the first of which, Khian Captain, was delivered to a Greek shipowner in 1967. Another successful design was the 14,200 gross tons 'SD-14', offered by UK shipbuilders Austin & Pickersgill, with deliveries starting in the following year.

Bulk carrier ascendancy

The world fleet of bulk carriers expanded rapidly during the late 1960s, amid strong growth in global dry bulk commodity trade. A bulk carrier is defined as a single-decker (no intermediate or 'tween' decks) designed to carry a wide variety of dry cargoes, including ores, minerals and agricultural bulk commodities. Usually only one commodity, a full shipload is carried on each voyage. Some bulk carriers were built specifically for the carriage of ore, mainly iron ore, and these ships were described as ore carriers.

Vessels in the bulk carrier category absorbed the enlargement of global commodity trade and also, increasingly, gained a large part of the market served by conventional tramp ships. Trade growth, on the scale seen within the 1960s, would not have been achievable without both transportation capacity expansion and the enhanced efficiency provided by bulk carriers coupled with highly mechanised loading and discharging equipment at ports.

By 1965 the world bulk carrier fleet exceeded one thousand vessels, more than double the number seen five years earlier. The end 1965 figure was 1054, amounting to 24.7 million deadweight tonnes, of which over one-fifth by deadweight were ore carriers, totalling 194 of 5.4m dwt, based on Shipbino/Fearnleys figures. The average bulk carrier size was 23,400 dwt, much larger than a typical dry cargo tramp. In the size range up to about 50,000 dwt bulk carriers were 'geared' (cargo handling equipment installed on board). From 50,000 dwt upwards most vessels were 'gearless', dependent on shore-based loading and discharging equipment.

Over the next few years further vigorous growth occurred, enabling the entire fleet to reach 2116 bulk carriers totalling 64.5m dwt at end 1970. Of these, 107 were in the 70,000 dwt plus size range (five years earlier there had been only 5). Adding many large vessels raised the average size to 30,500 dwt. But the ore carrier component, although still growing, had become a lower percentage of the total. Bulk carriers strengthened to carry heavy ore cargoes resulted in specialised ore carriers becoming a less attractive investment for shipowners.

Employment patterns in the late 1960s varied. Many bulk carriers, especially smaller 'handysize' vessels participated in tramping activity on the spot freight market, under charters arranged voyage by voyage or for short periods, carrying a variety of commodities. Trading patterns were worldwide. Grain cargoes were prominent, also coal, ores, fertilisers, sugar, scrap, forest products and numerous others. Larger vessels carried a more limited cargo range, and the biggest were mainly involved in the iron ore (including all ore carriers) and coal trades, or occasionally grain. Increasing average voyage distances further boosted tonnage demand.

One example of a large size bulk carrier delivered in 1967 is Sigsilver, commissioned by a UK shipowner. New regulations increased this vessel's capacity by 11 percent to 105,800 dwt, and in that year it was the world's biggest bulk carrier. The Aegean Monarch and Aegean Neptune, two 67,300 dwt ships are also noteworthy, delivered to a Greek shipowner in the same year.

Tanker gigantism

Two features of the global market for tankers were becoming, or had become, very prominent by the late 1960s. First, the world tanker fleet continued to grow rapidly as a consequence of oil trade expansion, mostly on long-haul routes. Second, there was a clear trend towards using more giant tankers, which had already reached 200,000 dwt capacity, labelled very large crude carriers (VLCCs), and even larger vessels were being introduced.

Tankers of all sizes were designed to carry liquids in full cargoes, mainly oil, in a hull structure divided into many separate individual tanks. Cargoes could be loaded and discharged at relatively high speeds (compared with dry bulk commodities). Shore pumps handled loading, while the ship's pumps handled discharging. Some cargoes required special equipment such as heating coils in tanks, to prevent oil becoming too difficult to pump.

In the 1960s first half the world tanker fleet's capacity grew by just over one third, reaching 2,999 vessels totalling 80.4m dwt at the end of 1964, according to Oil Tanker Databook figures. The average ship size was 26,800 dwt. During the second half, fleet expansion accelerated to 64 percent, raising the total to 3,160 vessels of 132.1m dwt at end 1969. Average ship size had risen to 41,800 dwt. These comparisons are not exact because earlier annual figures included all tankers of 5,000 dwt and over, while later figures excluded tankers below 10,000 dwt.

The largest tankers in the world fleet amounted to only a small number in mid 1967. Just four tankers exceeding 150,000 dwt existed, but within the next three years the number surged to 92 at end 1969, including 63 exceeding 200,000 dwt of which six leviathans were over 300,000 dwt (ultra large crude carriers, or ULCCs). Notable VLCC deliveries in 1967 were the 202,600 dwt Bergehus and 191,300 dwt Myrina. All these ships were designed to

achieve economies of scale, ensuring the lowest attainable cost per tonne for moving the cargo.

Oil tanker cargoes carried globally in this period, in massive and strongly expanding volumes, consisted primarily of crude oil, in various grades. Cargoes of products (processed, or refined oil) were also transported, mainly by smaller ships although quantities were relatively limited. Some small tankers carried chemicals or other liquids.

Most tankers, especially larger ships, were employed exclusively in crude trades, predominantly originating in the Middle East oil exporting countries, but also from West Africa. Europe and Japan were the dominant importers. Many shipments involved long-distance routes which further raised the transportation capacity needed.

Combined carrier creativity

A solution, at least partially, to the perennial problem of ships in the bulk trades performing long positioning voyages without a cargo was offered by the combined carrier concept. In the 1960s continuing to the present day, these ballast voyages unavoidably result from trade imbalances on most dry and liquid bulk routes, where there is no return cargo from the port of discharge or from a nearby location. In many instances a 'return' voyage is in ballast to the same, or a different long-distance loading port.

Two combined carrier types emerged, designed to carry oil cargoes and dry bulk cargoes, but not both together. The ore/oil carrier specification was ideally suited to carrying iron or other ore, and oil. The ore/bulk/oil (obo) carrier was designed to transport a wider range of dry bulk cargoes with higher (compared with ore) cubic volume requirements per tonne of cargo, as well as oil.

Ore/oilers were already well-established at the beginning of the 1960s when the world fleet comprised 60 ships totalling 1.6m dwt. Only one obo existed then. Five years later at end 1965, the ore/oil carrier fleet's capacity was more than double at 88 ships of 3.3m dwt, while the obo fleet remained small, just 6 ships, according to Shipbino/ Fearnleys figures. Later, during the second half 1960s, strong growth occurred. At end 1970 the ore/oil fleet had almost doubled to 108 ships totalling 6.4m dwt, and the obo fleet had surged, reaching 61 ships of 5.1m dwt.

Examples of this vessel type delivered to owners in 1967 were the Japanese ore/oilers Daiko Maru of 94,600 dwt and the 96,200 dwt Japan Wisteria. Norwegian owners took delivery of the 93,000 dwt Vestan in the same year. When the 1960s ended the biggest combined carriers being built were approaching 200,000 dwt.

Combined carriers were more expensive both to build and maintain than bulk carriers or tankers. Construction cost typically was10-15 percent higher per deadweight tonne. The justification for these increased costs was greater employment flexibility, coupled with reduced incidence of unremunerative ballasting. A voyage pattern could be arranged where, for example, a loaded ore voyage was followed by a relatively short ballast trip to an oil loading port. On completion of that oil voyage another short ballast trip to an ore loading terminal could follow. This 'triangular' pattern reduced the overall ballasting movements.

In practice such complex voyage patterns often proved difficult to arrange. Consequently the main employment pattern for many combined carriers was to remain in the dry bulk trades when freight rates were more profitable than those in the tanker market, and vice versa. During the 1966-1969 period, combined carriers trading in oil comprised 50 to 85 percent of the fleet, averaging 71 percent. Wide 'swings' from dry to oil, and back again, were a destabilising factor in both markets, sometimes exacerbating tonnage shortfalls or surpluses.

Bumpy cycling

One major event in 1967 had a widespread lasting impact on global shipping markets, altering the cyclical pattern. The Six-Day War between Israel and Egypt resulted in closure on 6th June of the Suez Canal, a major maritime artery linking the Mediterranean with the Red Sea which shortened routes between the Atlantic and Indian/Pacific oceans. Subsequently there was great uncertainty about when reopening would occur: that did not happen until eight years later in June 1975.

The significance of Suez is demonstrated by figures showing that in the year immediately before closure, 1966, total cargo volume moving through the Canal was 242 million tonnes, 14 percent of world seaborne trade. For liquid cargoes the proportion was almost 18 percent, and for dry cargoes 8 percent. Canal transits in that year totalled 21,250 vessels. Also of significance, the main alternative route for ships via the Cape of Good Hope adds a large extra voyage distance, for example an additional 3,300 miles or 30 percent from Japan to north Europe.

Markets were greatly affected by the additional demand for vessels resulting from longer voyages in many trades. Lengthened distances raise the tonne-mile measurement. Demand for ships' capacity increases because longer voyages reduce the number of trips performed by each vessel in any period. Freight rates in all markets rose to varying extents immediately after the Canal closed, but many rises subsided over the following months. One report characterised market events as a major boom in the tanker market and a minor boom for dry cargo vessels.

In the first half of 1967 freight markets were depressed amid a growing surplus of both dry cargo and tanker tonnage. Suez closure in June caused demand to strengthen especially in the oil trades, where the longer route via the Cape resulted in a tanker freight rates surge which was partly reversed later. Dry cargo trades were

affected less, with smaller rises in rates. In the cargo liner trades, service operators imposed freight surcharges to offset the higher costs which route deviations entailed.

Advancing regulations

Another event fifty years ago had long-term effects on global shipping markets. A dramatic tanker accident, resulting in severe coastal pollution, hastened moves towards tighter international maritime environmental regulations. In March 1967 the US owned Torrey Canyon, on charter to British Petroleum, ran aground on the Seven Stones Reef off the UK south west coast. The crude oil cargo of around 100,000 tonnes, en route from Kuwait to Milford Haven refinery, was spilled and the ship eventually sank.

Although tanker pollution rules had evolved over a number of years, the Torrey Canyon incident emphasised shortcomings, especially no regulations covering oil discharged as a consequence of a casualty. Soon afterwards IMCO (now IMO), began a study programme focusing on technical and legal changes designed to prevent or alleviate the problem. Eventually in 1973 the initial International Convention for the Prevention of Pollution from Ships (MARPOL) was adopted.

Heritage highlights

What aspects of shipping market trends and circumstances prominent today in 2017-18 can be traced directly back to changes starting or already under way fifty years ago, in 1967? From these historic events and subsequent linked changes over a half century period, observations can be attempted which seem highly relevant to the present day.

One lesson underlined by history is difficulties involved in assessing shipping market cycles, still an essential analytical exercise. Both future demand for, and supply of, shipping capacity was often hard to forecast. Despite great improvements in the availability of up-to-date information and enhanced analysis techniques, predicting market movements correctly - whether in the short or longer term - frequently remains elusive.

At intervals the impact of unforeseen dramatic changes was amply demonstrated. A classic example at the period's outset was the 1967 Suez Canal closure, which greatly altered ship's global trading patterns. This semi-permanent feature disrupted market cycles.

Another observation is that adoption of technological advances is sometimes much quicker than foreseen. The rapid pace at which containerisation was embraced in international seaborne liner trades, starting around 1967, provides a striking example.

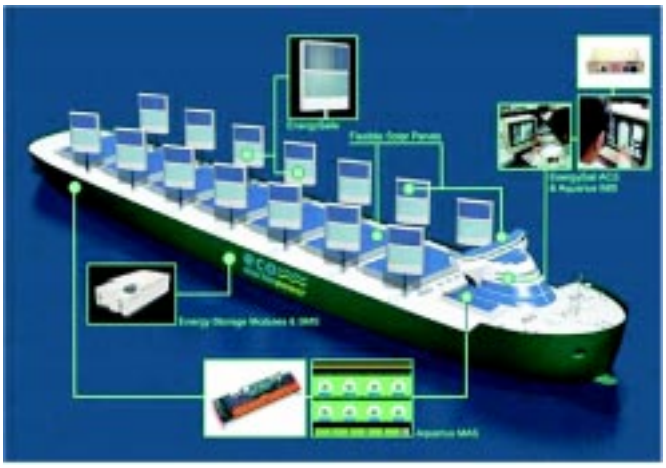
Linked with such upheavals is the hazard of investing in what proves to be yesterday's model. Investments in the late 1960s in traditional cargo liners, and also dry cargo tramp replacements (subsequently affected by bulk as well as liner trade changes) often proved unsuccessful.

Also, combined carriers appeared and became a substantial market feature, achieving some success, but eventually no longer fulfilled the role envisaged and have now almost disappeared.

Changing aspects of shipping economics were accompanied by changing maritime policies. Severe pollution from the Torrey Canyon casualty in 1967 stimulated a regime of progressively tightening environmental regulations still prevailing and tightening further today.

Although the full course of maritime progress over the past fifty years has not been covered in this article, connections with events half a century ago are visible. Some conclusions or lessons may be useful, at least partly, as a guide to what could happen in the future. But market sentiment and psychology, notoriously difficult to anticipate, is likely to have a big influence on the outcome. Moreover, many global events with possible major effects are a matter for speculation rather than prescriptive analysis.

lEco Marine Power to Study Use of Artificial Intelligence in Research Projects: To further enhance its research capabilities Eco Marine Power announced today that it will begin using the Neural Network Console provided by Sony Network Communications Inc., as part of a strategy to incorporate Artificial Intelligence (AI) into various ongoing ship related technology projects including the further development of the patented Aquarius MRE (Marine Renewable Energy) and EnergySail.



The Neural Network Console is an integrated development environment using deep learning for AI creation and has been used in deep learning applied technology development within Sony since 2015. Various functions are included such as recognition technology and a full-fledged GUI (graphical user interface) and these allow for deep learning programs to be developed. Deep learning refers to a form of machine learning that uses neural networks modelled after the human brain and is notable for its high versatility with applications in a wide variety of fields including signal processing, and robotics.

An initial area of focus will be on studying how the Neural Network Console and AI can assist with the development of the automated control system for EMP's EnergySail. This system automatically adjusts the position of the EnergySail depending on a number of variables including wind speed and direction. It is also envisaged that AI will be useful in helping to analyse the results of computer simulations related to the Aquarius Eco Ship.

"All of our solutions include a level of automation however we see opportunities to expand on this by using artificial intelligence and deep learning to improve control algorithms, analyse results and develop future systems", commented Greg Atkinson, Chief Technology Officer at Eco Marine Power. "In addition we intend to explore how recognition technology and sensors can be integrated together to control not only our systems, but other systems and equipment on ships especially in regards to the use of renewable energy on ships".

IMO Assembly Adopts Vision and Strategic Directions: The IMO Assembly met for its 30th session at IMO Headquarters in London, United Kingdom (27 November to 6 December). The Assembly was the largest-ever gathering at IMO Headquarters in London, attended by some 1,400 participants, including 56 at the ministerial level, from 165 Member States, as well as observers from inter-governmental and non-governmental organizations.

Strategic directions and vision adopted: The Assembly adopted its strategic plan for 2018-2023, including a revised mission statement, a vision statement (included for the first time) and seven newly-identified strategic directions for IMO, placing the Organization firmly on route to supporting the implementation of the United Nations Sustainable Development Goals and the 2030 Agenda for Sustainable Development.

The strategic directions are:

Improve implementation - ensuring regulations are effectively, efficiently and consistently implemented and enforced.

Integrate new and advancing technologies in the regulatory framework - balancing the benefits derived from new and advancing technologies against safety and security concerns, the impact on the environment and on international trade facilitation, the potential costs to the industry, and their impact on personnel, both on board and ashore.

Respond to climate change - developing appropriate, ambitious and realistic solutions to minimize shipping's contribution to air pollution and its impact on climate change.

Engage in ocean governance - engaging in the processes and mechanisms by which the use of the oceans and their resources are regulated and controlled.

Enhance global facilitation and security of international trade - addressing things like arrival and departure formalities, documentation and certification, and generally reducing the administrative burdens that surround ship operation.

Ensure regulatory effectiveness - improving the actual process of developing regulations, to make them more effective; gathering more data, and being better and smarter at using it to make decisions; getting better feedback from Member States and the industry and improving the way IMO learns from experience and feeds those lessons back into the regulatory process.

Ensure organizational effectiveness - increasing the overall effectiveness of IMO, including the Member states, non-governmental organizations, donors, the Secretariat -all the many stakeholders in the Organization as a whole.

"IMO will uphold its leadership role as the global regulator of shipping, promote greater recognition of the sector's importance and enable the advancement of shipping, whilst addressing the challenges of continued developments in technology and world trade; and the need to meet the 2030 Agenda for Sustainable Development.

To achieve this, IMO will focus on review, development and implementation of and compliance with IMO instruments in its pursuit to proactively identify, analyse and address emerging issues and support Member States in their implementation of the 2030 Agenda for Sustainable Development."

Support for UN SDGs through technical cooperation: The Assembly adopted three resolutions which focus on IMO's capacity-building work to support the implementation of the SDGs.

The first resolution covers the linkages between IMO's technical assistance work and the 2030 Agenda for Sustainable Development and requests the Technical Cooperation Committee to give high priority to those activities which not only promote the early ratification and effective implementation of IMO instruments but also contribute to the attainment of the SDGs, taking into account the special needs of the least developed countries (LDCs) and small island developing States (SIDS) and the particular maritime transport needs of Africa.

The second outlines guiding principles of IMO's integrated technical cooperation programme in support of the 2030 Agenda for Sustainable Development. It urges Member States to ensure the integration of maritime issues within their United Nations Development Assistance Frameworks (UNDAF) which will determine their national priority areas of funding and support for maritime technical assistance activities.

The third covers financing and partnership arrangements for an effective and sustainable integrated technical cooperation programme. It invites Member States, international and regional organizations, non-governmental organizations and industry to engage actively in the support of technical cooperation activities through voluntary cash donations to the TC Fund; financial allocations to IMO multi-donor trust funds; multi-bilateral arrangements; voluntary donations of interest earnings under the Contributions Incentive Scheme; and in-kind support through the provision of no-fee consultants, hosting of technical assistance events and the donation of equipment.

Focus on marine plastic pollution: The Assembly recognized that the ongoing problem of marine plastic pollution required further consideration as part of a global solution within the framework of ocean governance. This is in line with the UN SDG 14 (Conserve and sustainably use the oceans, seas and marine resources for sustainable development) which has a target to prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution by 2025.

IMO's MARPOL treaty addresses garbage under its Annex V, which bans the discharge of plastics from ships into the oceans. The treaties which regulate the dumping of wastes at sea (London Convention and Protocol) also have role to play in addressing plastic in the oceans from land-based sources.

The Assembly recognized the role that the Organization has and continues to play in addressing this problem. The Assembly encouraged Member States, Parties to MARPOL Annex V and international organizations to submit concrete proposals to the next sessions of the Marine Environment Protection Committee and the meeting of the Parties to the London Convention and Protocol which meet during 2018.

Polar code second phase welcomed: The IMO Assembly welcomed the planned work within the IMO Maritime Safety Committee (MSC) to build on the already-adopted Polar Code and move forwards with looking at how vessels not currently covered by its requirements might be regulated in future.

The Polar Code, which entered into force on 1 January 2017 under both the SOLAS and MARPOL treaties, provides additional requirements for safe ship operation in polar waters and the protection of the polar environment.

The work on the second phase, to address other vessels, including fishing vessels and smaller ships not covered by the SOLAS treaty, will be initiated at MSC 99 in May 2018.

IMO number scheme extended to fishing vessels and other vessels: The Assembly agreed to extend the IMO Ship Identification Number Scheme to more vessels, on a voluntary basis, to support ship safety and pollution prevention by being able to more easily identify vessels.

The number scheme applies to ships over 100 GT and is mandatory for passenger ships of 100 gross tonnage and upwards and all cargo ships of 300 gross tonnage and upwards. In 2013, the Assembly agreed to voluntary extension to fishing vessels over 100 gt. Further voluntary application is now extended to fishing vessels of steel and non-steel hull construction; passenger ships of less than 100 gross tonnage, high-speed passenger craft and mobile drilling units, engaged on international voyages; and to all motorized inboard fishing vessels of less than 100 gross tonnage down to a size limit of 12 metres in length overall authorized to operate outside waters under national jurisdiction of the flag State.

Identifying and tracking fishing vessels operating at sea and being able to establish their ownership is an important part of ongoing work to tackle illegal, unreported, unregulated (IUU) fishing. IMO is working closely with the Food and Agriculture Organization of the United Nations (FAO) and the International Labour Organization (ILO) as well as other stakeholders, to tackle IUU fishing.

IMO is also encouraging States to ratify the Cape Town Agreement on fishing vessel safety, to bring this important treaty into force.

Port State Control - revised procedures adopted

Port State control plays a crucially important role as the second line of defence against sub-standard ships. The Assembly adopted revised Procedures for Port State Control.

The resolution contains a comprehensive compilation of guidelines relevant to Port State Control. It updates the previous Procedures for PSC adopted in 2011 (resolution A.1052(27)). The revisions include, in particular, guidelines on the ISM Code; the certification of seafarers, hours of rest and manning; and procedures regarding voluntary early implementation of amendments to the 1974 SOLAS Convention and related mandatory instruments.

Ratification of 2010 HNS Protocol urged

The Assembly adopted a resolution calling on States to consider ratifying a key treaty which will provide a global regime for liability and compensation in the event of an incident involving the international or domestic carriage by sea of Hazardous and Noxious Substances, such as chemicals, LPG and LNG.

The resolution calls on States to consider ratifying, or acceding to, the 2010 HNS Protocol and to implement it in a timely manner. It also urges all States to work together towards the implementation and entry into force of the 2010 HNS Protocol by sharing best practices, and in resolving any practical difficulties in setting up the new regime.

Delegating the authority of issuing certificates of insurance

The Assembly adopted a resolution to allow for the delegation of authority to issue certificates of insurance under the International Convention on Civil Liability for Oil Pollution Damage, 1992 (the 1992 Civil Liability Convention) and the 2010 HNS Convention.

Unlike the Bunkers Convention 2001, the 2002 Athens Convention and the 2007 Nairobi Wreck Removal Convention, the 1992 Civil Liability Convention and the 2010 HNS Convention do not provide an explicit framework for the delegation of authority to issue certificates of insurance.

The resolution confirms that a State Party to the 1992 Civil Liability Convention or the 2010 HNS Convention can authorize an institution or an organization recognized by it to issue the certificates of insurance or other financial security required by these Conventions.

It also reminds States Parties that the delegation of authority to issue the certificates of insurance or other financial security required by the 1992 Civil Liability Convention and the 2010 HNS Convention would not affect the potential liability the delegating State may have in relation to those certificates.

Launching missiles without warning condemned

The Assembly endorsed the decision of the IMO Council to strongly condemn recent missile launches by the Democratic People's Republic of Korea which posed clear and serious danger to the safety of shipping in international trade.

IMO budget adopted

The Organization's results-based budget and work programme for 2018 to 2019 was adopted by the Assembly. The budget includes an assessment on Member States of £31,864,000 for 2018 and £33,242,000 for 2019.

Election of the IMO Council

The Assembly elected the 40-Member IMO Council for the next biennium 2018 to 2019 (see Briefing 35/2017). The Assembly directed the Council at its 120th session in June 2018 to examine the processes and procedures of the Assembly and Council, with a view to making suggestions for reform.

Election of Council Chair

The newly elected Council met on 7 December and elected Mr. Xiaojie Zhang (China) as Chair for 2018-2019. The election of the Vice-Chair was postponed until July 2018. The Council expressed its deep appreciation for the outstanding efforts and achievements of the previous Chair, Mr Jeff Lantz (United States).

Full list of resolutions adopted:

A.1110(30) Strategic plan for the Organization for the six-year period 2018-2023

A.1111(30) Application of the strategic plan of the Organization

A.1112(30) Results-based budget for the 2018-2019 biennium

A.1113(30) Revision of the Organization's financial regulations (effective 1 January 2018)

A.1114(30) Presentation of accounts and audit reports

A.1115(30) Arrears of contributions

A.1116(30) Escape route signs and equipment location markings

A.1117(30)) IMO Ship Identification Number Scheme

A.1118(30) Revised Guidelines on the implementation of the International Safety Management (ISM) Code by Administrators

A.1119(30) Procedures for Port State Control, 2017

A.1120(30) Survey Guidelines under the Harmonized System of Survey and Certification (HSSC), 2017

A.1121(30) 2017 Non-exhaustive list of obligations under instruments relevant to the IMO Instruments Implementation Code (III Code)

A.1122(30) Code for the transport and handling of hazardous and noxious liquid substances in bulk on offshore support vessels (OSV Chemical Code)

A.1123(30) Implementation and entry into force of the 2010 Hazardous and Noxious Substances Protocol

A.1124(30) Delegation of authority to issue certificates of insurance or other financial security required under the 1992 Civil Liability Convention and the 2010 Hazardous and Noxious Substances Convention

A.1125(30) Relations with non-governmental organizations

A.1126(30) Linkages between IMO's technical assistance work and the 2030 Agenda for Sustainable Development

A.1127(30) Guiding principles of IMO's integrated technical cooperation programme in support of the 2030 Agenda for Sustainable Development

A.1128(30) Financing and partnership arrangements for an effective and sustainable integrated technical cooperation programme

A.1129(30) World Maritime University and International Maritime Law Institute students visiting IMO Headquarters

A.1130(30) Charter of the World Maritime University

IMO Assembly

The 30th Assembly of IMO met in London at IMO Headquarters from 27 November to 6 December 2017. It was attended by some 1,400 participants, including 56 at the ministerial level, from 165 Member States, as well as observers from inter-governmental and non-governmental organizations and from the World Maritime University (WMU), the International Maritime Law Institute (IMLI).

The Assembly normally meets once every two years in regular session. It is responsible for approving the work programme, voting the budget and determining the financial arrangements of the Organization. It also elects the Organization's 40-Member Council.

CMA CGM Completes Acquisition of Mercosul Line: CMA CGM Group, a world leader in maritime transport, announces that it has completed the acquisition of MERCOSUL Line. MERCOSUL Line is one of the leading players in Brazil's domestic container shipping market.

The acquisition of MERCOSUL Line allows CMA CGM to strengthen its service offering in Brazil, and more broadly in South America, especially in cabotage and "door-to-door" services. Established in 1996, MERCOSUL Line serves more than 12 ports with a fleet of 4 vessels of 2500 TEUs (Twenty-foot Equivalent Unit). MERCOSUL's network includes 130 people in its offices in Santos, São Paulo, Manaus, Recife, and Itajai.

The activity of MERCOSUL Line is part of CMA CGM's core strategy, which is to develop intra-regional sea transportation links and complementary services such as logistics.

With a presence in Argentina, Brazil, Paraguay, and Uruguay through 18 dedicated offices, CMA CGM Group employs 340 staff members in the East Coast of South America. More than 71 vessels operate on 9 different services and call 20 ports.

Of trigonometry and towers - and two centuries of history: Often believed by locals and passersby to be abandoned churches or lighthouses, these lofty towers built of fired bricks can be spotted in and around Kolkata.

Not many are aware that these structures, rising 20 m above the ground, were built to undertake one of the greatest surveys in the 19th century - the Great Trigonometrical Survey (GTS) - aimed at measuring the entire terrain of the Indian subcontinent and the great Himalayan mountain peaks including Mount Everest.

Almost 200 years after the GTS was undertaken, a group of geographers and archaeologists have surveyed 15 such towers spread around 50 km radius of Kolkata under the project, "Legacies of the GTS in West Bengal."

Keith Lilley, professor of historical geography at Queen's University Belfast and the principal investigator of the project, said that some towers have survived while some others are soon to be lost forever.

"Restoration of these towers is possible and is also important. What is required is an assessment and consolidation of these structures. These structures have been built on firm ground and have survived almost 200 years," Prof. Lilley told The Hindu.

Referring to one such tower located in the southern fringes of Kolkata - the Samalia GTS - he said the tower has nearly collapsed. Half of the tower, run over by vegetation, fell in 2011. Researchers who carried out the fieldwork said the locals believe that the tower was a batighar or lighthouse, erected during the colonial period to keep an eye on the countryside.

The Bhola GTS tower near Singur in Hooghly district is thought of as a church by locals. Some locals, however, believe that Nawab Siraj-ud-Daulah built the structure to look out for the Marathas, who plundered parts of Bengal in the 18th century.

M. Satish Kumar, another professor from the Queens University, said multiple narratives centring around these towers were an equally important part of culture as the towers.

"In the earlier times these structures were seen as an imposition of the British Empire on the landscape and were even opposed," he said, referring to the towers located around Kolkata.

Prof. Satish Kumar, however, added that there was not much opposition for such structures in the Madras Presidency where the population "had better understanding about science" and knew what these structures aimed at.

Bishnupriya Basak , assistant professor in the Department of Archaeology of Calcutta University, who has also been associated with the project, said that mapping was an essential part of colonial rule but it was through this project that the culture of surveying has been documented in such detail. "It is like surveying the surveyors," she remarked.

There are other fascinating stories about the GTS towers.

Mount Everest, the highest peak in the world, was named George Everest, the first Surveyor General of India who had described the GTS as "perhaps of itself the most herculean undertaking on which any Government ever embarked."

"George Everest was particularly pleased with the towers erected in the north of the city, now on the Barrackpore Trunk Road, which was referred as Calcutta Baseline for the survey. Interestingly, these towers were built under the guidance of Radhanath Sikdar, a city-based mathematician who played an important role in the survey," said Rajat Sanyal, also an assistant professor in the Department of Archaeology.

In an attempt to highlight the cultural significance of the heritage, an exhibition titled "Legacies of the GTS in West Bengal" will be organised by the National Library, Kolkata, later this month.

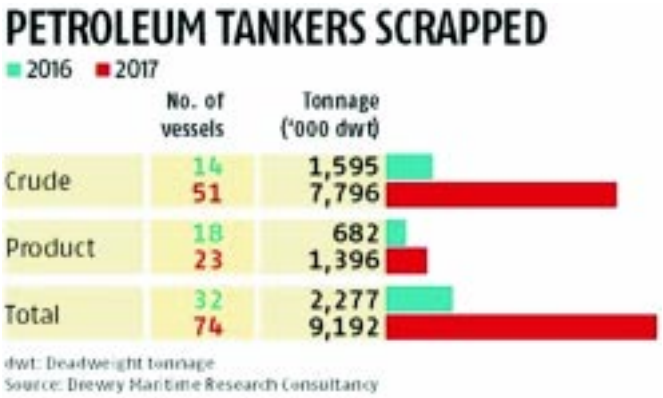
"There are hundreds of thousands of such towers and trigonometrical stations across the sub-continent and a detailed study can bring more awareness about the collective value of these towers and the significance which GTS has not only for India but for the world," Prof. Lilley said.

Tanker vessel scrapping to rise further in 2018: Scrapping of tanker vessels across the world is expected to rise significantly in 2018 as earnings for shipowners per tanker vessel might decline amid rising crude oil prices, drop in China's crude stocking activity and also ahead of the International Maritime Organization (IMO) regulations coming into effect in 2019-2020.

"Scrapping of tanker vessels globally is expected to go up further in 2018 and may even be more than the quantum of 2016 and 2017 put together. This will bring in a sharp demand-supply correction in the tanker market," Ranjit Singh, executive director and chief executive officer, Essar Shipping, told Business Standard.

Panamax, Aframax, Suezmax and Very Large Crude Carriers (VLCCs) are among the different types of tanker vessels in the market.

With crude oil prices continuously on the rise, experts said storage as well as trade demand for the commodity



might not remain strong. This would lead to scrapping of vessels.

In 2018, storage requirement of China, the world's second largest consumer of crude oil, could also drop. According to the International Energy Agency data on China's implied stock changes, the country should have accumulated close to 520 million barrels since 2015, well above the special petroleum reserve (SPR) capacity that was supposed to fully come online by 2020.

"There is pressure for scrapping in tanker market and nearly 25 per cent of vessels below 20 years of age are going for scrapping. This is expected to continue in the coming year as well," said Rajesh Verma, lead analyst (tanker shipping) at maritime research consultancy Drewry.

Tanker vessel life is usually between 20 and 25 years and scrapping usually takes place between 22 and 25 years.

"Scrapping activity in the market is also likely to increase because of bearish freight market outlook and additional costs associated with the forthcoming IMO regulations," he added.

The IMO has announced the effective date for the reduction of marine fuel sulphur would be 2020. Under the new global cap, ships would have to use marine fuels with a sulphur content of no more than 0.5 per cent against the current 3.5 per cent to reduce greenhouse gas emissions. Another regulation, pertaining to Ballast Water Management, was aimed at protecting the marine environment from transfer of harmful aquatic organisms in ballast water carried by ships.

"The two regulations by IMO would mean VLCC owners will have to invest $4-$5 million per vessel to comply with them. Since owners will not be able to recover this amount for aged vessels, this will add to scrapping of VLCCs older than 20 years," explained Verma.

Meanwhile, with asset prices having dropping almost by half in one year, there was an opportunity for companies to pick up younger assets at relatively lower rates, said experts.

"We are scouting for a VLCC and also have plans for Suezmax vessel. But these decisions depend on

availability of long-term cargo supply contracts," said Singh of Essar Shipping.

Great Eastern, Seven Islands, Shipping Corporation of India and Essar Shipping are among Indian shipping companies that might look for vessels.

Shipping industry must take 'urgent action' to meet Paris climate goals: The "Tony de Brum" declaration - named after the celebrated Marshallese politician who died earlier this year - calls for shipping to take "urgent action" to contribute to meeting the 2C and 1.5C goals of the Paris accord.

The declaration was released at the summit in the French capital, which marks two years since the Paris Agreement on climate change was adopted in the city.

It was signed by 35 countries, including the UK, France, Denmark, Germany, Canada, the Marshall Islands, Chile and New Zealand.

Shipping produces at least 2 per cent of global CO2 emissions, but the International Maritime Organisation, the London-based UN agency responsible for regulating shipping, has struggled to set its own emissions reduction target.

Other key news from the summit included an announcement from the World Bank that it will largely stop financing oil and gas exploration after 2019. In addition, Macron described Donald Trump's announcement in July that he intends withdraw the US from the Paris accord as "extremely aggressive".

The new shipping declaration comes amid a current push within the IMO to at last develop a decarbonisation strategy, something it has long been under pressure to do.

Last month at the COP23 climate summit in Bonn, Germany, Carbon Brief spoke to Edmund Hughes, the IMO's head of air pollution and energy efficiency, about the development of the organisation's new climate strategy.

In the wide-ranging interview, Hughes also addressed how shipping can hope to align itself with the 1.5C goal of the Paris Agreement when the IMO is facing accusations of "corporate capture".

Strategy: The IMO has struggled to make progress on tackling its emissions since it was first mandated by the international MARPOL convention to clean up the sector in 1997. The IMO's last greenhouse gas study, published in 2014, showed that emissions are likely to grow quite significantly as global demand for trade continues to rise.

International shipping was not included in the final text of the Paris Agreement, but Hughes tells Carbon Brief the IMO and its member states recognise that it has to make efforts to contribute to its goals.

The IMO has promised to lay out its "initial" climate strategy in April 2018, with a final revised version set to come out in 2023. Earlier this year, delegations from around the world met at the IMO headquarters in London and agreed a seven-point plan for a draft of the strategy.

A set of seven strategic directions for 2018-2023, adopted earlier this week by the IMO Assembly, also included one on developing solutions to minimise shipping's contribution to climate change.

Carbon Brief asked Hughes about what kind of strategy the IMO is developing for decarbonising shipping. He said:

"We're a regulator…so we develop mandatory rules that ships have to comply with, and we've done that for technical and aspirational aspects of shipping. The strategy that's being developed now…is really looking at what further measures can be undertaken.

Now the initial strategy, it's a good question what will be in it, but there was agreement last July that there should be a sort of outline, a draft outline structure. That would include importantly, obviously, sort of preamble introduction context, but very importantly a vision of what the sector and where the sector should be going this century essentially, in terms of it carbon emissions."

Hughes said there is a suite of measures being considered, including both mandatory measures (see below) and voluntary measures, such as the need for more research and development on innovative technologies, and low-carbon alternatives fuels.

Concrete target?

When asked whether the new strategy will have any concrete emissions reduction targets, Hughes said that is still part of the discussion. He said:

"The negotiation is looking at the various options that could be used to provide a target…If we have, for example - and thinking hypothetically - a vision that says 'we need to remove, reduce all carbon dioxide emissions from international shipping within this century', or 'by the end of the century' or 'in the second half of the century', or whatever words you want to use…well, then you need to have an ambition that matches that target. That ambition then has to set goals and objectives, or, as has been referred to me, aspirational objectives.

But when we look at setting targets for international shipping, whatever we do, there has to be a recognition also that currently…what [shipping] uses as its fuel: hydrocarbon fuel, liquid hydrocarbon fuel mainly. We use over 300m tonnes a year of bunker fuels…and we have to somehow replace those bunker fuels with some other [sustainable fuel or innovative technology]."

1.5C: Today's Tony de Brum declaration reiterates a commitment to the Paris Agreement's goal of both holding global temperature rise to "well below" 2C and "pursuing efforts" to limit warming since the pre-industrial era to 1.5C.

Its signatories "confirm that international shipping, like all other sectors of human activity, must take urgent action in consideration of these vital objectives".

Speaking to Carbon Brief about the 1.5C goal last month, Hughes said that while the IMO has received proposals from some countries that it should align itself with the Paris Agreement's 1.5C goal, not all governments necessarily agree with this. He said:

"We work by consensus in the IMO and we seek agreement across with all governments, because that helps us move forward, particularly with this initial stage of the strategy, it's important that everyone feels that we're starting on the right place.

In terms of the goal, 1.5C is ambitious for everybody, frankly, at this stage now. We recognise that, but also we recognise that those countries who are most at risk from climate change really need to see action. And, in fact, the [IMO working group on greenhouse gas emissions] that met just a couple of weeks ago [in October] recognised that, to a degree: […] it supported the need for early action. So it's how you do it now, and again what is appropriate for the shipping sector."

Corporate influence: In October, the NGO InfluenceMap published a report accusing the shipping industry of aggressively lobbying the IMO to obstruct climate change action for shipping.

This lobbying has ensured shipping remains the only sector in the world not currently subject to any emission reduction measures, InfluenceMap said.

The report singled out three industry trade associations - International Chamber of Shipping (ICS), the Baltic and International Maritime Council (BIMCO) and the World Shipping Council - as having collectively lobbied to delay implementation of any climate regulations.

InfluenceMap also found that 31 per cent of nations were represented in part by direct business interests at the most recent IMO environmental committee meeting. The report said:

"The IMO appears the only UN agency to allow such extensive corporate representation in the policy making process."

All three trade bodies have denied they are obstructing climate action. WSC says it has offered concrete proposals for both short- and long-term carbon reduction and co-sponsored a proposal to reduce CO2 emissions, although this did not include binding sector-wide greenhouse gas emissions reduction targets.

Similarly, ICS's director of policy and external relations, Simon Bennett, says the shipping industry, in fact, played a large part in persuading IMO member states to develop a strategy to reduce emissions following the adoption of the Paris Agreement.

Carbon Brief asked Hughes to respond to concerns that business interests are overly represented in the IMO. He said:

"Well, we have formally responded [to these claims]. We've made clear that the delegations is a matter for the governments who attends IMO. It's the secretariat of IMO, it's not us who decides who attends. It's up to the governments to decide.

We have about 70 observer organisations who attend IMO and they come from a range representing the industry, representing environmental NGOs, representing the seafarers, another important component of our work…

It would be strange, frankly, if an international regulator, for a sector like shipping, didn't have industry representation providing input. They have a lot of the technical understanding of the shipping sector: ships are highly technical machines…To say we'll be able to operate as a good regulator without input from the industry, I'd be surprised."

Non-discriminatory principle: In contrast to the United Nations Framework Convention on Climate Change (UNFCCC), which recognises the principle of "common but differentiatedresponsibilities" (often referred to as "CBDR") and capabilities depending on different national circumstances, the IMO has a non-discriminatory guiding principle.

This talks about "no more favourable treatment", with every ship treated the same.

The IMO is still making efforts to reconcile those two principles, Hughes told Carbon Brief:

It's very important we do so because, obviously, the developing countries want to see whatever [emissions reduction strategy] the IMO develops…recognise the CBDR principle.

But, at the same time, the way we regulate shipping, international shipping, is to say 'well all ships are the same'. So, that's one of the areas where we're having to work quite hard to try and get a compromise…

This is a very important principle we have, because if ships were treated differently based on their flag state, the country on which they're registered, then you would undermine, frankly, the whole international regulatory regime.

Because why would anybody go under a flag statewhere they were having greater regulations imposed on them than another flag state.[…]

That's not like a power station or a cement factory, so it's much harder to say 'well we're going to control you'.

So, we have to get agreement that all ships will have to comply…Otherwise we could suffer from things like carbon leakage, which again we want to ensure that any measures, we don't have those sorts of problems.

Technical measures: The IMO has implemented some carbon cutting measures in recent years, said Hughes.

The mandatory Energy Efficiency Design Index (EEDI), for instance, currently requires new ships to be 10 per cent more energy efficient than they were in the baseline 2000-2009 period. This will be pushed up to 20 per cent in 2020 and 30 per cent in 2025.

However, this is just for new ships. With 40,000 to 45,000 ocean going ships currently in use and with 1,000-2,000 new ones built each year, it will take decades to change all those to newer, more energy efficient ships.

"It is a problem, I'm not going to deny it, that is a challenge," said Hughes.

The IMO has also developed the Ship Energy Efficiency Management Plan (SEEMP) which aims to make the existing fleet more energy efficient in the way it operates, such as making sure the ship is set up correctly in the water, hull maintenance and operational practises, such as weather routing.

An oil consumption monitoring programme is also set to be introduced next year.

From 2019, ships over 5,000 tonnes will have to collect data on the fuel oil they consume and report on it through their flag state to the IMO. Data on things such as distance and time travelled will also be collected.

The IMO also has several programmes geared at building technical cooperation and capacity building.

But Hughes insisted the IMO recognises these measures can only go so far. "If we're going to sort of go further we have to look at other measures, and that's part of the discussion now," he said.

The IMO has also begun to look at market-based measures again, which stalled in the years ahead of the Paris Agreement due to fears of the impact it would have on economies. Hughes said:

"We've restarted that discussion now. In fact, when you look at the draft strategy, we have short, medium and long-term measures being proposed in there. And, in the medium term, they're referring to market-based measures again. So we are trying to move forward, but it needs everyone to work together and understand some of the issues. And the impacts on states have to be recognised."

Hopeful?

Carbon Brief asked Hughes if he is hopeful that a greenhouse gas reduction agreement can be reached at the IMO and whether he thinks, ultimately, shipping will limit its emissions. He said:

"I am. Because I think, as we see with the Paris Agreement, people recognise we are on a pathway now for…decarbonisation of the global economy. And I think that's recognised by the governments.

But if somehow people could satisfy the negative risks - and the negative risks can be properly mitigated - then I think we can move forward…You know we have an expression, throw the baby out with the bathwater: international shipping is an important sector for global trade. I mean that's fundamentally what we're there for; we support global trade. And now 60 per cent of global trade is done by developing countries, those countries have to be confident that there's not going to be an impediment to their sustainable development.

Some companies are very keen on improving their carbon footprint…Fuel is over 50 per cent of the operating cost of a ship. So companies who can see a reduction in fuel costs through, for example, energy efficiency measures, can improve their profit."

Korean Shipbuilders Have Much Anticipation for Hike in Ship Prices Next Year: It is noteworthy that ship prices will rise next year with the shipbuilding industry shrinking recently due to forecasts about hundreds of billions of won in loss by Samsung Heavy Industries. This is because a rise in ship prices is highly likely to pull up prices of orders across the board and make an improvement to shipbuilders' business performances.

According to the shipbuilding and securities industries on December 12, it was forecast that prices of Korean ships will inflate about 15% this year thanks to a strong Korean won, rising steel prices and limited competition among others.

The Clarksons Index, a lagging indicator, is expected to climb more than 10 percent in the second half of next year. "A rise in prices of orders to Korean shipbuilders started to spread from mid-sized vessels of Hyundai Mipo Dockyard to large-sized ones of Hyundai Heavy Industries," said Park Moo-hyun, a researcher at Hana Financial Investment. "A strong Korean won and a hike in steel prices will accelerate a rise in prices of orders to Korean shipbuilders."

Observing recent orders, some types of vessels are taking the initiative in raising vessel prices. Hyundai Heavy Industries received orders to build three very large crude carriers (VLCCs) from two shipping companies (Sinokor Merchant Marine and Hyundai Glovis) this month. In particular, it was of note that the shipbuilder received orders at prices higher than their market prices. Daewoo Shipbuilding & Marine Engineering (DSME) also landed a VLCC contract from a Greek company on December 4. It was also reported that DSME got the order for a price at the level of Hyundai Heavy Industries's prices of the three vessels. "We now know that DSME landed the order at a price US$2 million more than US$ 81 million, the price of a VLCC," an industry official said.

Such orders can be credited to technological quality satisfying international environmental standards. Experts say that vessel prices rose as various kinds of devices

were added in order to honor Tier 3 Standards, an environmental regulation set by the International Maritime Organization (IMO).

"Although China is still continuing its offensive with low prices, the Korean shipbuilders were able to land the orders at prices higher than market prices because they adopted high-end specifications to meet tougher environmental regulations," said an official of the shipbuilding industry.

In recent years, the Korean shipbuilding industry's biggest concern was low prices of ships built in China. Even though Korean shipbuilders told shipping companies about the quality of ships built by Korean shipbuilders, a lot lower prices offered by Chinese shipbuilders made Korean shipbuilders helpless. Pan Ocean recently placed orders for six super large ore carriers (VLOCs) with the Chinese shipbuilding industry. The contract totaled US$444.51 million and US$74.09 million apiece. The price difference is large compared to an order amounting to about US$80 million to build a VLOC which Polaris Shipment placed with Hyundai Heavy Industries.

New BARECON 2017 calculates future trends: BIMCO has published a new edition of BARECON, the industry's go-to standard contract for bareboat chartering. The new leaner version of the contract, introduces a formula for calculating a fair share of costs for any compulsory structural changes or new equipment that may be implemented during the charter period.

BIMCO started revising the contract in April 2016, responding to, and to reflect changes in commercial practice and legal developments since BARECON was last updated in 2001.

Following the "Ocean Victory" judgment earlier this year, BIMCO has also clarified the wording of the insurance clauses in relation to an insurer's right to claim against third parties. BARECON 2017 keeps pace with modern bareboat chartering practice and will be useful for all those involved in specialised long term bareboat chartering agreements.

"BARECON 2017 is arguably one of the most widely used BIMCO documents in the industry. This is a significant revision which will help make it an even more usable and well-balanced document. The new revised document should serve the industry successfully for the next 10-15 years", said Captain Ajay Hazari of Anglo Eastern Ship Management, Hong Kong, who chaired the BARECON 2017 revision drafting team.

Other new features of BARECON 2017 include an option for charterers to extend the charter period; tighter notice requirements on delivery and redelivery; and it gives charterers the right to place staff on board for familiarisation, prior to delivery.

"BARECON 2017 builds on the success of previous editions of this industry standard contract. It introduces features that are highly relevant to modern bareboat chartering practice, such as a fair way of sharing the cost of mandatory new equipment. The new edition can easily be tailored to suit the needs of individual users. We hope it will continue to be the first choice of contract for anyone looking to bareboat charter a ship," said Grant Hunter, Head of Contracts and Clauses at BIMCO.

The BARECON 2017 charter party is available now on BIMCO's IDEA contract editing system.

Moody's: Alliances, M&A to remain key feature of container shipping sector seascape into 2018: Consolidation, whether through alliances or M&A, will continue apace in the container shipping industry into 2018 as companies try to boost market share, improve efficiency, and handle intensifying competition and persistent oversupply, says Moody's Investors Service in a report published today.

"The trend toward consolidation among container shipping firms will continue into 2018 as larger companies look for opportunities to increase market share, while smaller companies seek to increase efficiency to maintain profitability," says Maria Maslovsky, Vice President-Senior Analyst at Moody's.

Consolidation through slot purchases and alliances has helped improve efficiencies without the need for companies to take on extra debt. These strategies allow shipping companies to pool resources to increase efficiencies and customer reach without balance sheet impact and transaction risk.

Moody's expects shipping companies to continue to seek alliances and slot purchase agreements where possible . Any that do not participate will probably be at a competitive disadvantage as they are less likely to achieve the cost efficiencies needed to compete with peers in alliances. Exceptions would be regional firms like Wan Hai Lines Ltd. (Ba2 stable) that focus successfully on a specific market niche and do not compete with larger firms on the main trade lanes.

Moody's anticipates that M&A will continue in the sector given the potential for both revenue and cost synergies resulting from such transactions. However, while recent mergers including Hapag-Lloyd AG (B2 stable) and CSAV, and CMA CGM S.A. (B1 positive) and NOL, have resulted in synergies, the success of future transactions will depend on strong operational execution.

In Moody's view, the impact of debt-funded M&A on companies' creditworthiness would depend on a number of factors, including the company's ability and focus on restoring its metrics to within the rating agency's guidance over a 12-18 month period.

India to commission its first new conventional submarine after 17 years:

The new 1,565-tonne submarine is to be followed by five of her Scorpene sisters under the Rs 23,652 crore "Project-75".

The submarine, which has a speed of 20 knots, is equipped with sea-skimming SM-39 Exocet missiles and heavy-weight wire-guided surface and underwater target torpedoes.

"Sea denial" is the name of the game for conventional diesel-electric submarines. Their primary role is to interdict an enemy's trade and energy routes, block its ports, sink its warships, and sometimes attack land targets with long-range cruise missiles.

Nuclear-powered submarines armed with nuclear-tipped ballistic missiles, called SSBNs in naval parlance, of course, are all about strategic deterrence. While India

took a major step forward to complete its nuclear weapons triad by commissioning its first small SSBN called INS Arihant last year, to add to the existing Agni land missiles and fighter-bombers, its old and depleting conventional underwater combat arm has been a huge worry for the last several years.

So, when PM Narendra Modi commissions India's first new diesel-electric submarine in over 17 years in Mumbai on Thursday, it will be a red-letter day for the beleaguered Navy. The force, after all, is grappling with just 13 ageing conventional submarines, only half of them operational at any given time.

The new 1,565-tonne submarine, named INS Kalvari+ (tiger shark, a deadly deep-sea predator) after the first-ever submarine inducted by India from Russia in December 1967, is to be followed by five of her Scorpene sisters under the Rs 23,652 crore "Project-75" underway at Mazagon Docks in collaboration with France.

The Scorpene project, of course, has faced huge time and cost overruns after the contract with French shipbuilder DCNS (the Naval Group) was inked way back in October 2005.

INS Kalvari, for instance, was to be ready by 2012, with the other five coming by 2017. Now, the second one INS Khanderi will be commissioned by mid-2018, with the third INS Karanj following by early-2019. All the six will be inducted by 2020-2021 now.

"It's better late than never. INS Kalvari is the most potent platform to have been constructed in India, capable as it is of undertaking offensive operations spanning the entire spectrum of maritime warfare," said an officer.

The submarine, which has a speed of 20 knots, is equipped with sea-skimming SM-39 Exocet missiles and heavy-weight wire-guided surface and underwater target torpedoes. "The submarine has superior stealth and the ability to launch a crippling attack on the enemy using precision-guided weapons," said another officer.

Even as it pops the bubbly for INS Kalvari, the Navy is also keen to kick-start the long-delayed "Project-75-India" for construction of six new stealth submarines, with both land-attack missile capabilities and air-independent propulsion for greater underwater endurance. "We hopeful of beginning the project by end-2018," said Navy chief Admiral Sunil Lanba.

Indian sailor alone & adrift in Gulf ship for a year finally rescued: DEHRADUN: Nirmal Singh Rawat, a merchant navy officer from Dehradun, was rescued from an oil tanker MT Hamed 2, anchored five nautical miles (approximately 15 km) from the shore on the border of Sharjah and Ajman in the United Arab Emirates (UAE), a few days ago after almost a year of staying onboard the ship --most of the time alone.

The 27-year-old had joined the ship in July last year as its captain but on reaching there realised that the seven-member crew had not been paid for over a year. He claimed that he was also not given the agreed-upon monthly salary of 2,000 USD ever since he joined. In a few months, his crew members, one by one, left the ship giving up hope of being paid since they found out that the owner of the ship had been arrested in a financial fraud case.

However, Rawat decided to stay on alone in the vessel even though there were low reserves of food and water as well as no electricity onboard. Girish Pant, a social activist based in Dubai who eventually helped in getting the sailor rescued, told TOI, "The ship was in a precarious state. Because there was a blackout onboard, a passing vessel had collided with the ship and damaged it. A few weeks back, the shackles of the anchor after rusting broke, leading to a situation where the vessel could have gone adrift."

Rawat, who stayed put through it all -- often going without water and food for days __ had got in touch with Pant in November last year when his sailors left the ship hoping that Gulf authorities could intervene to resolve the situation. Pant recalled, "I tried to co-ordinate with the consulate general of India and spoke with local authorities to help. Nirmal was literally at sea since the ship's owner was in jail and he did not even have a contract of employment with him or clearance from local officials to bring the ship to coast."

Eventually, after Pant followed up with the UAE Federal Transport Authority (FTA) and the Consulate General of India for several months, the necessary paperwork was completed and Rawat was rescued on Tuesday.

TOI got in touch with him while he was en route to Dehradun via Mumbai but he refused to speak about his ordeal. However, in an earlier interaction with Dubai's Gulf News soon after being rescued, the sailor had said, "I used to eat only once in three days, saving the food I received from passing by ships. There were days I had to starve. Once I had to stay for 50 hours without even drinking water in the peak of summer."

He also told the publication that he managed to occasionally communicate with the authorities to complain about his conditions after sailors from ships passing by helped him charge his phone. On why he didn't leave when other sailors left the ship, he said, "I am the captain. I couldn't go just like that. Also, I wanted to get my pending salary. So I stayed back."

Meanwhile, Pant said that they would now initiate efforts to recover the sailor's salary. "I must compliment him for remaining positive and calm. He didn't even inform his family of what he was going through lest they worry. The authorities will be conducting an enquiry against the ship's owner and probably the pending salaries will be paid after selling off the vessel."

ISRO to help track suspicious vessels through satellite imageries: Indian Space Research Organisation (Isro) will soon help agencies engaged in coastal and maritime security to track suspicious vessels and boats through satellite imagery. The initiative, under which Isro will supply 1,000 transponders by March next year for satellite monitoring of boats, is aimed at preventing a 26/11 attack-type infiltration from the sea route.

While automatic identification system will monitor boats measuring above 20 metres, satellite monitoring is proposed for the sub-20m boats, a home ministry official said on Friday.

The infrastructure for tighter monitoring of suspicious vessels approaching the Indian coast is coming up fast,

with 46 coastal radars and 74 automatic ID systems installed. Colour coding of boats is also being undertaken by the coastal states and UTs for easier monitoring in the high seas and on the International Maritime Boundary Line (IMBL).

The aforesaid measures are part of home ministry's efforts to beef up coastal security in wake of the breach that triggered the Mumbai attacks in 2008. Ten Pakistani terrorists had sailed all the way from Karachi coast to Mumbai, starting in a Pakistani vessel and then shifting to an Indian fishing boat they had hijacked mid-sea, before landing undetected on the Mumbai coast in a rubber dinghy. They unleashed mayhem at the city's iconic buildings including Taj Hotel, thereafter, killing 166 people.

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