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IFSMA

NEWSLETTER

The Shipmasters' International Voice



Jebel Ali
Photo: DP World ©



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Editor's Note

To open my epistle on behalf of all at IFSMA I send congratulations to Mark Dickinson, long standing General Secretary of Nautilus International, the UK IFSMA Member Association, who has been awarded the (UK's) Merchant Navy Medal for Meritorious Service. The award was announced from London on 3 September, Merchant Navy Day. Mark is a former IFSMA Executive Councillor.

This award and the special day may encourage administrations to record the value of their merchant seafarers and their deeds. The latter are achieved often with the routine tasks moving cargoes and people across the oceans to the great benefit to national economies and the consumer.

In our report on activities at IMO it is staggering to read of the huge effort put in by its staff and host countries by way of improving maritime security against those who would wish that calamity falls upon the world's mariners. Sadly, this is a sign of our times.

Until the next time I send good wishes wherever you may be, ashore or afloat, as the Northern Hemisphere Winter or Southern Summer draw nigh.

Secretary General's Report

You should all be aware that in July the Headquarters moved office and we now have a desk in the HQ of IMarEST just off Parliament Square. It was rather strange leaving Lambeth Road after more than 20 years, but our landlord's decision to double our rent left us with no real choice. The CEO of IMarEST has been very understanding and we are now happily lodged with them in an open plan office, but with significantly better facilities than we have had in the past. With very modern video conference facilities in all four of the meeting rooms available to us, it will mean that we can start new ways of working remotely and hopefully save those Associations represented on EXCO significant sums by avoiding travel and accommodation costs. It will also be good to try and start communicating with our Member Associations at an early opportunity in advance of IMO Committee Meetings. Paul Owen has sent out our new address to you all and it is also on the website and above.

August has been a relatively quiet time for us at Headquarters although Captain Willi Wittig is now steaming full ahead, with help from Captain Sudhir Subhedar and his team from the Company of Master Mariners of India (CMMI), making the preparations for the first of our Biennial Conferences to be held in New Delhi in September 2019. We will be holding a Steering Committee Meeting to assess progress this month (September) and I hope we will be able to start sending you some regular updates on the progress.

September is traditionally a very busy month for us as the IMO starts back with its busy Committee meeting schedule after a summer break. The brief for CCC5* has now been placed on the website <http://tinyurl.com/ybuuv2el> and I have now completed the brief for III5**. You should all have seen the calling Notice for the Special Meeting of the General Assembly to be held at Trinity House, London, on 19th September 2018. This Meeting will address Resolutions 44/01 – 44/05 made at the 44th AGA in Buenos Aires which is very much concerned with taking IFSMA forward with renewed vigour to enable us to make an even bigger impact on the international stage where our standing has never been so high. Please let the Secretariat know whether or not you can attend or at least send in your Postal Votes or Proxy Form. I look forward to seeing you there. After the meeting I will be attending the Cross Industry Working Group on Maritime Anti-Corruption (MACN) around the World in October. I am delighted IFSMA is representing you on this Working Group as it is generally you, the Shipmaster who has to cope with this abhorrent practice at sea. In future Newsletters I will keep you informed of the progress we make.

*The IMO Sub-Committee on Carriage of Cargoes and Containers.

**The IMO Committee on Implementation of IMO Instruments. <http://tinyurl.com/yd3d7cgy> Busy times at IMO

Hydrographic surveying in ports

Charting for the 21st Century

By John Pinder MNM, Port Hydrographer, Port of London Authority

This article appears here by kind permission of the author, the Corporation of Trinity House London and Editor, The Trinity House Fraternity Review 2018

By the end of this year, 2018, the gap will have finally closed on the mandatory requirements for ships to carry ECDIS (Electronic Chart Display and Information System), with all existing vessels of over 10,000 GT being required to be so equipped (all new vessels greater than 3,000 GT already have to comply). This article explores the provision of the chart data available to such systems and how a major port (in this case the Port of London Authority – PLA) is providing such data.



Fig.1 - Berthing as seen on a PPU using Bathy ENC.

There is no doubt that having one's position continually displayed on the chart is a tremendous advantage to the navigator / pilot, as most of us now rely on sat navs in our car, so the paper chart is joining the road atlas in the boot. ECDIS can provide much more than just displaying one's position (and those of other vessels) on the chart, there are safety zones which are automatically sensitive to one's draught and safety contours, which can be set to clearly define areas where there is sufficient water to navigate.

The problem that hydrographic offices have had over the last few years is creating the Electronic Navigational Charts (ENC) that are the official data that feed the ECDIS. To avoid the massive overhead in recompiling World folios of charts and having to maintain two products (paper and digital) most Hydrographic Offices (HOs) have opted to use the paper product as the base data set; this severely limits the efficacy of the ENC in ECDIS, in particular the safety contour. The United Kingdom Hydrographic Office (UKHO) is only now starting to experiment with a 'digital first' policy to integrate the high resolution survey data that is available into their ENCs.

There are two ways in which a well-resourced port hydrographic service can fill this gap, though, for the time being, this is only available on pilot systems as the ECDIS regulations preclude use of 'unofficial' data. Firstly, highly accurate bathymetry from the most recent survey can be compiled into a Bathymetric ENC (bENC), in the case of the PLA the approach channels and berth approaches are now all covered at 0.5m contour interval. The chart systems that the Pilot Portable Units (PPU) the pilots now carry can display this data over the underlying official (but smaller scale) charts, Figure 1 showing a pilot making good use of the safety contour while berthing in a dredge pocket.

As already mentioned, the only charts approved for use on ECDIS are those issued by the national authority, in the case of the UK, the UKHO. All ports are obliged to supply survey data to the UKHO for incorporation into official charts but this still incurs delays and loss of detail. The PLA has been producing berthing scale electronic charts for the PPU's for some time but has now come to an agreement with the UKHO that the latter will publish the PLA charts verbatim, so they will be available to international shipping for use on ECDIS, this is a first for a UK (and one suspects, European) port.

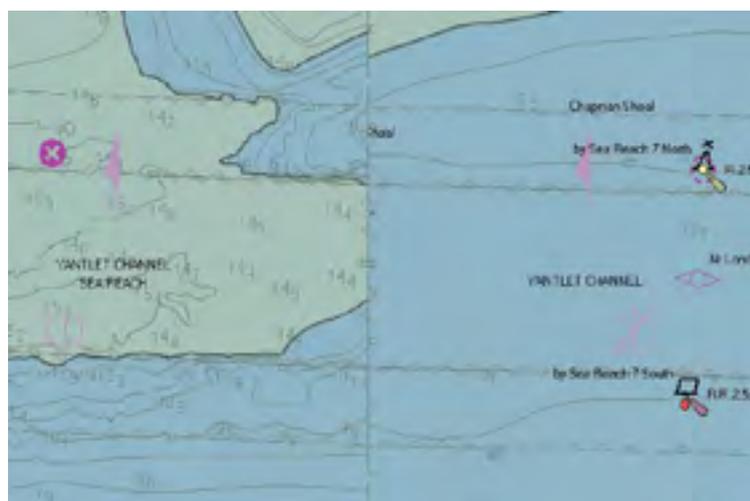


Fig.2 - The 14.0m Safety Contour, 1m contours on the left, 5m on the right.

Figure 2 shows the boundary of the PLA 'cell' against the existing published UKHO chart, where the safety contour is set to 14.0m. The official chart only has a 15m contour, so the channel is effectively closed to the ship, although what happens is navigators know this and ignore the screen, not exactly conducive to safety.

The pilot systems are now offering sub metre accuracy via kinematic GPS as the bridge team need to rely on this, whether it is a 400m container ship turning in a very limited area or a passenger ship squeezing through the Thames Barrier. This in itself has put the onus on port surveyors to ensure that the topography is equally accurate, so over the last ten years the PLA Hydrographic team have been out there with lasers and drones, as well as their sonar systems, to capture every last detail of the structures and get them onto the highly detailed charts.



Fig.3 - Cruise ship transiting the Thames Barrier.

So, where does this leave us for the future in charting? The beauty about digital mapping is that layers can be turned on and off and whilst the current product specification is very restrictive in this respect, a new specification for electronic charting is in the making at the International Hydrographic Organization, S100. Once accepted into the maritime world this new form of data, based on a geo-spatial standard along the lines of Geographic Information Systems (GIS) will allow the use of additional overlays, as shown in the model in Figure. 4, including high resolution bathymetry, temporal data (e.g. Met and tides), port information, nautical publications, photographs etc.

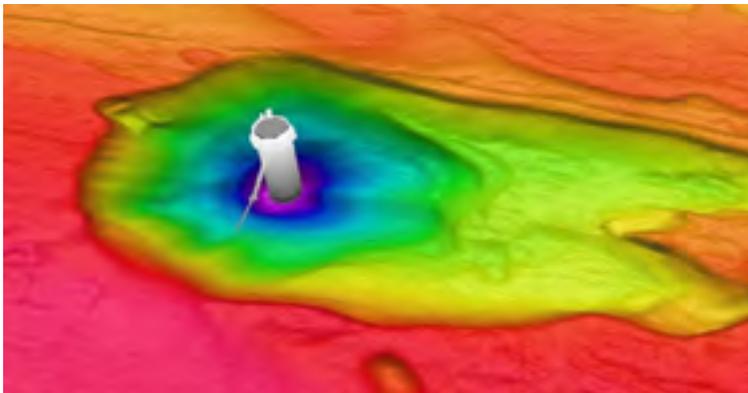


Fig. 4 - Windfarm pile and associated scour.

To survey the 400 sq. miles of river and estuary, from above Richmond right out to the North Sea and supply data for the pilots, mariners, engineers and environmentalists, the PLA Hydrographic Service have three purpose built survey boats and a team of 17 people, producing over 300 surveys a year. Close links are maintained with Trinity House as the moving sandbanks require frequent buoy moves, not to mention the 600 aids to navigation for which the PLA has responsibility as the Local Lighthouse Authority for the Thames.

Proper stowage of cargo containers

AMSA Marine Notice 2018/3

In August 2018 the Australian Maritime Safety Authority (AMSA) issued a notice the aim of which was to remind vessel owners, operators and masters of the need to stow and secure cargo containers in accordance with approved arrangements.

Background

All cargo, whether carried on or under deck, should be stowed and secured in accordance with the vessel's Cargo Securing Manual as approved under Regulation 5.6 of Chapter VI of the Safety of Life at Sea (SOLAS) Convention. This includes the manner in which cargo is secured and the weight distribution of cargo within the stow.

In Australia, Chapter VI of the SOLAS Convention is given effect through Marine Order 42 (Carriage, stowage and securing of cargoes and containers) 2016.

AMSA is aware of incidents in recent years in which the stowage of cargoes did not comply with the approved arrangements, in that:

- Loaded containers were carried in slots only intended for empty units.
- The weight of some loaded containers exceeded the maximum weight for containers permitted to be stowed in that slot.
- Fixed and portable securing equipment were not maintained appropriately.

Such practices may compromise the effectiveness of cargo stowage and securing arrangements and increase the risk of cargo being lost overboard while at sea. The likelihood of this is increased by weather conditions and navigational practices. The impact of such events on safety and the environment is often significant.

Expectations

Australia expects cargo to be carried in full compliance with the vessel's Cargo Securing Manual and in accordance with the requirements of the SOLAS Convention.

Masters and owners should be aware that additional focus will be directed towards stowage and securing arrangements during forthcoming port State control (PSC) inspections in Australia.

If, during a PSC inspection, evidence is found that:

- The weight distribution and stack weights are not in compliance with the approved cargo stowage arrangements;
- The securing arrangements are not in accordance with the approved Cargo Securing Manual, or
- The Cargo Securing Manual does not adequately cover the cargo being carried;

AMSA will take the necessary steps to bring the ship into compliance.

The AMSA document: *Proper stowage of cargo containers*, Marine Notice 2018/3 is available here as a pdf document: <http://tinyurl.com/y9kjsee3>

The Unifeeder Group becomes part of the DP World Group

On 7 August the Unifeeder Group, the largest pan-European feeder and shortsea operator, announced from Aarhus, Denmark, the signing of agreed acquisition by DP World.

Under its new ownership, Unifeeder will benefit from DP World's global scope, size and presence which in turn will enable Unifeeder's brands to expand further and beyond present territories and products. It is understood that Unifeeder will continue to operate on a fully independent, multi-user basis under its current existing management, and expects to see additional growth as a consequence of the transaction.

Commenting on the acquisition, Jesper Kristensen, CEO, said: *'We are excited to join the DP World Group. Not only is there commonality with our business models but we also share the vision of serving our customers through removing inefficiencies and delivering sustainable shareholder value. We have enjoyed great success over the last five years under Nordic Capital's ownership, and we believe that the Unifeeder brand within the DP World Group has the opportunity to accelerate growth, expand further and take the business to the next level.'* He continued: *'...together with our new owner, we will strive to further improve our offering and further optimize the transshipment markets and the supply chains in Europe and beyond – to the benefit of our clients in particular and the cargo in general.'*



Unifeeder vessel *Ida Rambow*

Photo: Unifeeder ©

Speaking of the acquisition, Sultan Ahmed Bin Sulayem, Group Chairman and CEO, DP World, reflected: *'We are delighted to add the Unifeeder brand under the DP World umbrella, which supports our strategy to grow in complementary sectors, strengthen our product offering and play a wider role in the global supply chain as a trade enabler.'*

He added: *'The ever-growing deployment of ultra-large container vessels has made high-quality connectivity from hub terminals crucial for our customers and Unifeeder is a best-in-class logistics provider in this space with a strong reputation in Europe. Our aim is to leverage on the in-*

house expertise of Unifeeder and to accelerate growth in this scalable platform to deliver value for all stakeholders. Unifeeder operates on the same common-user principle as DP World and adds to the Group's strong value proposition to international shipping lines and end cargo owners in making the global supply chain more efficient and cost effective.'

Under its present ownership, led by leading private equity investor, Nordic Capital, Unifeeder has since 2013 grown to become the largest independent Pan-European feeder and shortsea operator with a well-connected network, spanning more than 100 ports in Northern and Western Europe, the Mediterranean (including North Africa and the Middle East) as well as in the Black Sea.

About Unifeeder

Unifeeder operates approximately 60 short-term chartered vessels, carrying around 3.2m TEUs and performing some 12,000 port calls annually.

The company serves two distinct markets: Feeder Services transport containers from the large European hubs to regional ports, thereby providing major international deep-sea container shipping lines easy access to ports and regions beyond their reach. Shortsea Services provide fully multi-modal door-to-door transport of full-load containerized cargo for customers across Europe, combining seaborne transport with third party road and/or rail logistical services.

Founded in 1977 and headquartered in Aarhus, Denmark, Unifeeder has in the region of 400 employees and professional representatives in 25 countries.



Unifeeder vessel *Veersedijk*

Photo: Unifeeder ©

About DP World

DP World is a leading enabler of global trade and an integral part of the supply chain. The group operates multiple businesses – from marine and inland terminals, maritime services, logistics and ancillary services to technology-driven trade solutions. In 2017, DP World handled 70.1 million TEU across its portfolio. With a committed pipeline of developments and expansions, current gross capacity of 88.2 million TEU is expected to rise to more than 100 million TEU by 2020.

KR launches survey services using drones

Earlier this year the Korean Register of Shipping (KR*) – an IACS member classification society – announced that it is now conducting inspection services using drones, responding to the industry-wide trend to use more unmanned technology.

It is reported that the new service which has been successfully trialled and now launched, follows extensive collaboration and research conducted with the University of Gyeongnam Geochang, Republic of Korea.

Inspection by drone will save KR's customers time and money and will enhance the safety of the organisation's workforce, it is understood. Inspection is conducted on-board, in and around ships and many of the inspected areas are high risk and difficult to access safely by other means.



Photo: Korea Register of Shipping ©

Furthermore, with inspections carried out using drones (UAV, otherwise unmanned aerial vehicle) and underwater drones (ROV remotely operated vehicle), such efforts will form an important part of the decision-making and assessment process for KR's surveyors, complimenting their traditional surveying skills.

After researching the possibilities and technology available, KR successfully completed a series of tests using camera-equipped drones for ship inspections, and at the same time established a registration process for service suppliers, including the University of Gyeongnam Geochang. The two organisations now plan to work together on future technological developments.

Lee Jeong-kie, Chairman and CEO of KR commented:

'We are delighted to announce that we can now offer full ship inspection services with camera-equipped drones, employing the very latest technology. This development will be a significant advantage for our customers, saving their time and capital resources as well as increasing efficiency and safety at the worksite, which I hope, will in turn improve competitiveness across the shipping industry.'

'This is just the latest development in KR's continuous efforts to identify and develop new practical ways to meet our clients' needs, and to enhance their businesses prosperity.'

Moving forward, KR plans to provide services using a variety of different drones to expand its inspection service areas. To offer high quality and more diverse services to more clients, KR will carry out further research and development into the relevant technology, while vetting and registering more secure service suppliers around the world, particularly in the People's Republic of China and across Asia.

* KR, a world-leading, technical advisor to the maritime industry, safeguarding life, property and the environment through the pursuit of excellence in its rules and standards has a comprehensive network of more than 60 offices with headquarters in Busan, ROK.

Crew unfitness cases relate to hepatitis

Earlier this year the World Health Organization (WHO) issued a statement on the subject of Hepatitis as new data highlighted the need for urgent global response.

At the time new WHO data revealed that an estimated 325 million people worldwide are living with chronic hepatitis B virus (HBV) or hepatitis C virus (HCV) infection.

In a WHO Global hepatitis report of 2017 it was indicated that the large majority of these people lack access to life-saving testing and treatment. As a result, millions of people are at risk of a slow progression to chronic liver disease, cancer, and death.

In the words of Dr Margaret Chan, WHO Director-General: *'Viral hepatitis is now recognized as a major public health challenge that requires an urgent response. Vaccines and medicines to tackle hepatitis exist, and WHO is committed to helping ensure these tools reach all those who need them.'*

The Western Pacific Region has the largest number of people living with chronic hepatitis infections among the six WHO regions. At the end of 2015, an estimated 14 million people were living with chronic hepatitis C infection and 115 million with chronic hepatitis B infection. Every day, 1200 people in the Region die because they are unable to access effective hepatitis care.

'Eliminating hepatitis will require ongoing innovation, better medicines, and improved health services,' said Dr Got-

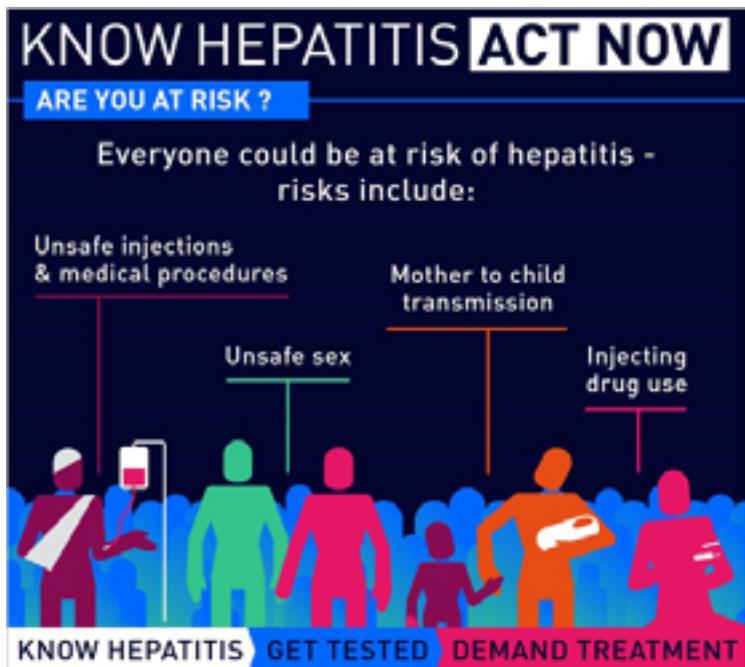
ffried Hirschsall, WHO Director for HIV and Hepatitis. He continued: 'Our new recommendations should pave the way for everybody with hepatitis C to access testing and curative treatment now.'

UK P&I Club comments

On 1 August the Crew Health Team at UK P&I Club, called for greater crew education on hepatitis where findings have shown that over one in ten crew unfitness cases relate to hepatitis.

Medical examination results, obtained from the UK P&I Club PEME* clinic network, indicate 10.1% of cases of crew unfitness are related to hepatitis, with 8.5% of the total crew found unfit due to Hepatitis B.

With such high rates of infection among seafarers, it is vital that crew are informed on hepatitis. Having a greater knowledge of the disease's symptoms, method of transmission, measures of prevention and treatment will allow crew to minimise the risk of original infection or consequent spread, creating a healthier and safer work environment.



What is hepatitis?

Hepatitis refers to an inflammatory condition of the liver. The condition can progress to fibrosis (scarring), or liver cancer. Other infections, toxic substances (for example alcohol and certain drugs), and autoimmune diseases can also cause hepatitis.

Symptoms:

There are a number of identifiable symptoms associated with the hepatitis:

- Fatigue
- Flu-like symptoms
- Dark urine or pale stool
- Abdominal pain

- Loss of appetite or unexplained weight loss
- Yellow skin and eyes, which may be signs of jaundice

What are the five types of hepatitis?

There are five unique hepatitis viruses, identified by the letters A, B, C, D, and E. While all cause liver disease, they vary in important ways.

1. Hepatitis A virus (HAV)

HAV is present in faeces and most often transmitted through consumption of contaminated water or food. Certain sex practices can also spread HAV. Infections are in many cases mild, with most people making a full recovery. However, HAV infections can also be severe and life threatening. Safe and effective vaccines are available to prevent HAV.

2. Hepatitis B virus (HBV)

HBV is transmitted through exposure to infected blood, semen and other body fluids. Transmission may also occur through transfusions or contaminated injections. Safe and effective vaccines are available to prevent HBV.

3. Hepatitis C virus (HCV)

HCV is mostly transmitted through exposure to infective blood. This may happen through transfusions of HCV-contaminated blood and blood products, contaminated injections during medical procedures, and through injection drug use. There is no vaccine for HCV.

4. Hepatitis D virus (HDV)

Infection of HDV occurs only in those who are infected with HBV. The dual infection of HDV and HBV can result in a more serious disease and a worse outcome. Hepatitis B vaccines provide protection from HDV infection.

5. Hepatitis E virus (HEV)

Mostly transmitted through consumption of contaminated water or food, HEV is a common cause of hepatitis outbreaks in developing parts of the world. Safe and effective vaccines to prevent HEV infection have been developed but are not widely available.

Prevention

Improved sanitation, food safety and immunization are the most effective ways to combat hepatitis A.

The spread of hepatitis A can be reduced by:

- Adequate supplies of safe drinking water;
- Proper disposal of sewage within communities; and
- Personal hygiene practices such as regular hand-washing with safe water.

Several injectable inactivated hepatitis A vaccines are available internationally. All are similar in terms of how well they protect people from the virus and their side-effects.

Nearly 100% of people develop protective levels of antibodies to the virus within one month after injection of a single dose of vaccine. Even after exposure to the virus, a single dose of the vaccine within two weeks of contact with the virus has protective effects. According to WHO manufacturers recommend two vaccine doses to ensure a longer-term protection of about five to eight years after vaccination.

*Pre-Employment Medical Examination.

UK P&I Club MOU Concentrated Inspection Campaigns

Focus on air pollution

It was learnt from the UK P&I Club in London on 1 August that Paris MOU, Tokyo MOU, Indian Ocean MOU and Black Sea MOU port state control (PSC) regimes have agreed to focus on the prevention of air pollution by ships during their forthcoming concentrated inspection campaigns (CICs): 1 September and 30 November 2018.

It is understood that the Port State Control Officers (PSCOs) will pay particular attention to visiting ships' compliance with MARPOL Annex VI.



Furthermore, it is believed that the CIC checklist/questionnaire to be used by attending PSCOs was due to be published in August. However, as some PSC regimes have recently announced that they will take enforcement of the new 2020 global 0.5% sulphur cap seriously from commencement of the new regulation, the CIC might well focus on this to create awareness on the forthcoming requirements.

The UK P&I Club has advised that ship operators should therefore expect to be asked to confirm the sulphur content of the fuel on-board as part of the CIC. This could be achieved by a review of documents, such as bunker delivery notes, oil record books, fuel logs and fuel changeover procedures, as well as the taking and analysis of fuel samples at short notice.

However, UK P&I Club continues, SO_x is not the only pollutant governed under the convention and therefore ves-

sels should ensure they comply with limits to NO_x, Ozone Depleting Substances (ODS) and shipboard incineration waste material.

Members of the Club have been encouraged to familiarise themselves with the relevant MARPOL Annex VI regulations and CIC criteria well before 1 September 2018.

As with previous CICs, it is assumed that the questionnaire will focus on the maintenance and working condition of relevant equipment, such as the incinerator, but will mainly contain operational questions aimed at verifying the Ship's Company familiarity with the ship-specific equipment and procedures.

Finally, the Club reminds that it should not be forgotten that compliance with MARPOL Annex VI requires significant recordkeeping and that Ship Masters should ensure that all MARPOL Annex VI documentation is complete and up-to-date prior to entry into any port.

Hapag-Lloyd increases reefer fleet by 11,100 containers

Strengthening position as one of the largest reefer carriers

Hapag-Lloyd reported that it is investing in its container fleet and has ordered 11,100 reefer containers of the latest type. These new containers will be integrated into the company's existing fleet of 91,000 reefer containers with delivery, which commenced in August, being finally completed by December 2018.

The company has continuously invested in new reefer equipment over recent years and also renewed a significant share of its fleet. Since 2015 and including the most recent order, the liner shipping company has purchased a total of 30,550 new reefers to ensure that it can offer modern equipment and sufficient seasonal availability to its customers, particularly during peak times such as the harvest seasons of fruit or vegetables.

To quote Clemens Holz, Director Reefer Products: 'We experience very positive feedback from our clients on our ability to deliver consistent quality services in the reefer business. Furthermore, we see increasing demand from clients to transport temperature-sensitive goods. To benefit from additional opportunities in this attractive market segment, we have decided to increase our reefer fleet.'

Production of the new reefers began in August with the first series of 40ft containers. Two thousand of these are equipped with what is known as "Controlled Atmosphere" – a technology used to slow down the ripening process and to extend the shelf life of fruit and vegetables.

These new, advanced containers will also have cooling units with the highest level of efficiency, it is understood. Taking advantage of optimised power control, they will also consume significantly less energy, without any change in

performance and temperature precision, it was reported by Hapag-Lloyd.



An example of Hapag-Lloyd's vast stock of reefer boxes.
Photo kindly provided by Hapag-Lloyd ©

Frank Nachbar, Director Container Engineering and Maintenance, added: 'The new reefer containers undergo intensive tests before they are made available for our customers to transport their valuable freight.'

In addition to food products, Hapag-Lloyd also ships other sensitive cargoes in reefer containers, such as high-value pharmaceuticals. The new order will clearly expand the company's footprint in this strategically important niche market.

USCG Marine Safety Alert

Potential interference of VHF-FM Radio and AIS reception

In mid-August the US Coast Guard indicated it had received reports from crews, ship owners, inspectors and other mariners regarding poor reception on VHF frequencies used for radiotelephone, digital selective calling (DSC) and automatic identification systems (AIS) when in the vicinity of light emitting diode (LED) lighting onboard ships (for example in navigation lights, searchlights and floodlights, interior and exterior lights or adornment).

Radio frequency interference caused by these LED lamps was found to create potential safety hazards. For example, the maritime rescue coordination centre in one port was unable to contact a ship involved in a traffic separation scheme incident by VHF radio. That ship also experienced very poor AIS reception. Other ships in different ports have experienced degradation of the VHF receivers, including AIS, caused by their LED navigation lights. LED lighting installed near VHF antennas has also shown to compound the reception.

The full two-page USCG Marine Safety Alert is to be found as a pdf here: <http://tinyurl.com/y9jnlv4x>

In order to determine the full impact of this interference, the Coast Guard has requested those encountering this problem to report their experiences to the US Coast Guard Navigation Center

<http://tinyurl.com/yb27ccfg>

with the advice to select "Maritime Telecommunications" on the subject drop down list, then briefly describe the make and model of LED lighting and radios affected, distance from lighting to antennas and radios affected, and any other information that may help understand the scope of the problem.



August 15, 2018
Washington, DC

Safety Alert 13-18

Let us enlighten you about LED lighting?
Potential interference of VHF-FM Radio and AIS Reception.

The U.S. Coast Guard has received reports from crews, ship owners, inspectors and other mariners regarding poor reception on VHF frequencies used for radiotelephone, digital selective calling (DSC) and automatic identification systems (AIS) when in the vicinity of light emitting diode (LED) lighting on-board ships (e.g., navigation lights, searchlights and floodlights, interior and exterior lights, adornment).

Radio frequency interference caused by these LED lamps were found to create potential safety hazards. For example, the maritime rescue coordination center in one port was unable to contact a ship involved in a traffic separation scheme incident by VHF radio. That ship also experienced very poor AIS reception. Other ships in different ports have experienced degradation of the VHF receivers, including AIS, caused by their LED navigation lights. LED lighting installed near VHF antennas has also shown to compound the reception.

Strong radio interference from LED sources may not be immediately evident to maritime radio users. Nonetheless, it may be possible to test for the presence of LED interference by using the following procedures:

1. Turn off LED light(s).
2. Tune the VHF radio to a quiet channel (e.g. Ch. 13).
3. Adjust the VHF radio's squelch control until the radio outputs audio noise.
4. Re-adjust the VHF radio's squelch control until the audio noise is quiet, only slightly above the noise threshold.



The Safety Alert has been provided for informational purposes only and does not relieve any domestic or international safety, operational, or material requirement.

The pdf document has been developed by the US Coast Guard, Spectrum Management and Telecommunications Policy Division.

It has been distributed by the Office of Investigations and Analysis.

Questions may be sent to
HQS-PF-fldr-CGF-INV@uscg.mil

Stena Bulk's China LNG trade

Stena Bulk reported on 17 August that the company's LNG carrier *Stena Blue Sky* made history when she delivered cargo to the first privately-owned LNG terminal in the People's Republic of China.

Stena Bulk controls a combined fleet of around 110 ves-

sels. Stena Bulk is part of the Stena Sphere, which has more than 20,000 employees and sales of SEK 60 billion.

Chinese gas distributor ENN invited the LNG carrier to provide the first vessel to unload at the new Xin'ao Terminal in Zhoushan, Ningbo region on 8 August 2018.

It is understood that Chinese companies build their own LNG terminals and import the fuel directly because they aim to meet higher demand and reduce their dependence on supplies of LNG from state-owned companies. The Zhoushan terminal has a capacity of 3 million tonnes of LNG per year.

In the words of Erik Hånell, President & CEO Stena Bulk: *'Being "first in China" is a rare title and we are all proud we participated in such an event. Each one of the operations was distinct as each piece of terminal equipment was being operationally used for the first time.'*

'It took resourcefulness, patience and a problem-solving attitude, but it was a successful operation.'

As well as experiencing the pomp of the event, the vessel also underwent a PSC inspection while at the terminal, receiving zero observations.

This major ceremonial operation attracted television news coverage in China with ENN owner Yusuo Wang and ENN senior management attending. *Stena Blue Sky's* Master Captain Marko Skoric, and the rest of her crew were also joined by Stena representative Helen Huang, Austen Maritime Services Shanghai, as well as a host of other Chinese dignitaries and terminal representatives.

About ENN Energy Holdings

Established in 1993, ENN is one of the leading privately-owned gas operators in China. ENN Energy's principal business includes sales and distribution of pipeline gas, investing in and managing gas pipeline infrastructures, vehicle/ship gas refuelling stations, LNG trading, sales of other energy forms and so forth.



Stena Blue Sky delivers the first LNG cargo at energy giant ENN's new terminal in China.

Photo: Stena Bulk ©.

Safety Achievement Award from Chamber of Shipping of America to Stena Blue Sky

The award was recently given for the professional seamanship and conduct when *Stena Blue Sky* effected a rescue operation after spotting a fisherman and recovering him from wreckage between the waters of North Korea and Japan 26th October 2017.

"Events of this nature are subject to international laws and for us, acting in accordance with these laws is a matter of course. Nevertheless, it is important that attention is drawn to them – in this case, by the Chamber of Shipping of America. I would also like to take the opportunity to express my appreciation to our crew on board for having acted professionally and in accordance with our expectations in this situation", said Erik Hånell, President & CEO, Stena Bulk.

Resilient PNT and the ePelorus

By Martin Bransby© R&RNAV Manager

General Lighthouse Authorities of the UK & Ireland

This item was first delivered at the 19th IALA Conference held in Incheon, Republic of Korea, May / June 2019 and appears here by kind permission of the author, the Corporation of Trinity House London and the Editor, The Trinity House Fraternity Review 2018

e-Navigation

Much has been written about e-Navigation elsewhere, but briefly, e-Navigation is the International Maritime Organisation's (IMO) concept for the future of navigation, instigated by the UK Department for Transport in 2004 [1]. It will lead to the integration of systems and data, for the exchange of relevant geolocated information, faster and more cost effectively and it will do this in the context of larger, faster vessels operating in ever more constricting shipping lanes and increasing offshore obstacles such as renewable energy infrastructure as well as the legacy of non-renewable energy infrastructure.

e-Navigation is designed to enhance safety of life for the mariner, improve protection of the environment, increase energy efficiency in terms of shorter routing for fuel efficient shipping; moreover, it will allow more effective use of resources and integration across transport modes, including the more effective provision of integrated port operations.

Since its inception in 2004, there has been slow progress in the development and delivery of eNavigation services, even now, some 14 years later, only a few prototype projects have delivered anything like what the original e-Navigation vision hoped would be delivered. This sluggishness has been caused by minimal leadership and drive from the IMO. Despite this, some initiatives have been successfully delivered on a local or regional basis. These initiatives have been delivered largely through projects such as, *inter alia*, ACCSEAS [2], EfficienSea 1 & 2 [3] [4], MonaLisa 1 & 2 [5],

Sea Traffic Management [6], all of which have been supported by funding from the European Union. Resiliency in Positioning, Navigation & Timing (PNT) has been identified by the IMO as a lead area in the delivery of e-Navigation [7] and all these projects have used Resilient PNT as the basis of what they have delivered.

GNSS Vulnerability and the Requirement For Resilient PNT

It is now well recognised that all Global Navigation Satellite Systems (GNSS) are vulnerable to interference [8] [9], whether these interferers are from natural causes (Space weather and atmospheric disturbances), or from synthetic sources such as Jamming or spoofing. GNSS component and satellite failures do occur and there are many examples of all the above occurring.

Resilient PNT information is needed to ensure continuity of maritime operations and safe navigation - especially for e-Navigation, Sea Traffic Management and autonomous vessels.

NavStar Global Positioning System (GPS) jamming trials were conducted by the General Lighthouse Authorities of the UK and Ireland's (GLA) Research & Radionavigation Directorate (R&RNAV) in 1994, 2008 [10], 2009 and 2012. These trials showed the real-time vulnerability of maritime systems to jamming. They identified that many ships' systems were affected by GPS jamming; however, some systems we did not expect to be affected actually were (see Figure 1). Devices such as the helicopter-deck stabilisation system and the ship's gyro-compass are good examples.

GLA WORK ON RESILIENT PNT

GLA through R&RNAV, have conducted a programme of work that has looked at the issues of GNSS vulnerability and what they can do about it through a series of studies. These have looked at a number of systems such as: enhanced

Figure 1- Ships' systems affected by GPS Jamming

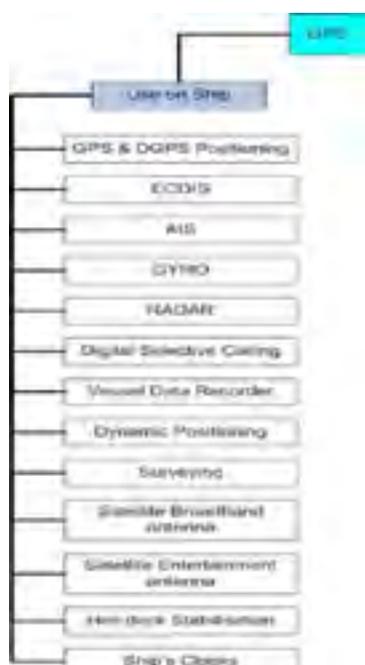
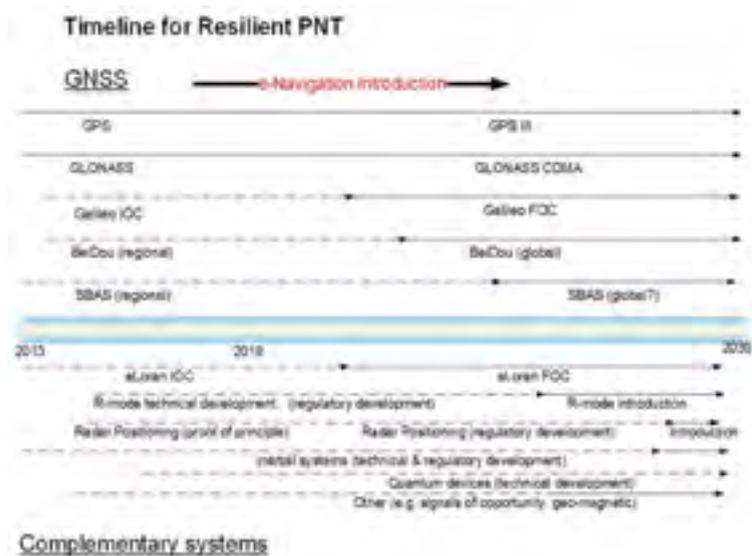


Figure 2 – Timeline for Resilient PNT (GNSS & Complementary Systems)



A Driver for Optical Navigation Systems

MV TRICOLOR INCIDENT

On 14 December 2002, in early morning thick fog, on its way from Zeebrugge to Southampton, the MV *Tricolor*, with a load of almost 3,000 BMW, Volvo and Saab cars, collided with a Bahamian-flagged container ship named *Kariba*, about 20 miles north of the French coast in the Dover Strait Traffic Separation Scheme. Albeit damaged above the water line, the *Kariba* could continue, while the MV *Tricolor* remained wedged on her side in 30 metres of water in a busy area of navigation (see Figure 3). No lives were lost and the crew were rescued by the *Kariba* and a tugboat. Nevertheless, approximately 2,862 cars and 77 units of cargo, consisting mainly tractors and crane parts, could not be salvaged.



Figure 3 MV Tricolor

The shipping lane, being the busiest in the World, was marked by buoys and guarded by the French police vessel *Glaive* and HMS *Anglesey*, thereby warning other vessels

of the MV *Tricolor's* presence. Despite the marking and patrolling, only two days later a cargo ship, *Nicola*, followed by another vessel, *Vicky* (carrying 70,000 tonnes of highly flammable gas oil) collided with the wreck of the *Tricolor*, after failing to heed several French naval warnings. In between the two further collisions, more buoyage and patrol vessels were deployed. On the 22 January, a third accident happened when a salvage tug knocked a safety valve off the *Tricolor*, resulting in a massive oil spill.

Besides the heavy economic losses, including the estimated operation cost of around £25m, the incident caused massive marine pollution and environmental contamination by spilling large quantities of oil. The Royal Society for the Protection of Birds estimated more than 1,000 birds were found dead or damaged by oil spilled from *Tricolor*.

WHY DID IT HAPPEN?

The incident was blamed on declining professional standards among seafarers, which was leading to scores of near misses in the area every day. Indeed, Andrew Linnington, of the National Union of Marine Aviation and Shipping Transport Officers (Numast), is quoted as saying that ship owners had been cutting costs by reducing use of deep sea pilots to guide vessels through the world's most crowded shipping lanes.

Ships were increasingly crewed by one trained officer and a few poorly paid sailors from parts of the developing world. "We know of at least four cases in the past year of ships going the wrong way in shipping lanes against the flow of traffic," Mr Linnington said. "Complaints are made to the states where the ships are registered but they are often small countries used as flags of convenience and don't have the resources to take action." Reference[11]

It is clear from the incident and the ensuing investigation that navigators were not looking out of the window, despite various radio navigation warnings and other methods, not the least of which was deploying wreck marking buoys and virtual aids to navigation.

A very good way of mitigating the failure of any navigation system is by using reversionary methods of navigation, like looking out of the window! This was a big driver in the GLA development of the **BinoNav®**.

What is BinoNav®

BACKGROUND AND THE PELORUS

BinoNav® is an electronic pelorus¹. A pelorus is a device that is completely independent of any other system or Electronic Position Fixing System (EPFS) and this is important for providing resiliency.

A standard pelorus (see Figure 4) is used to take relative (to the vessels head) bearings to charted objects. The navigator then draws a line on the relevant navigation chart bisecting the charted object.

¹ The word pelorus comes from the name of the guide who directed Hannibal's army from Carthage to Rome in 218 B.C.



Figure 4 - Standard Pelorus

It is clear now that the vessel lies somewhere on this line from the charted object. This process is then repeated several times, with a minimum of three iterations. This process then creates a "Cocked Hat" generated from the intersection of the lines. The vessel should lie somewhere within this cocked hat (see Figure 5 for an example which shows the bearings intersecting exactly).

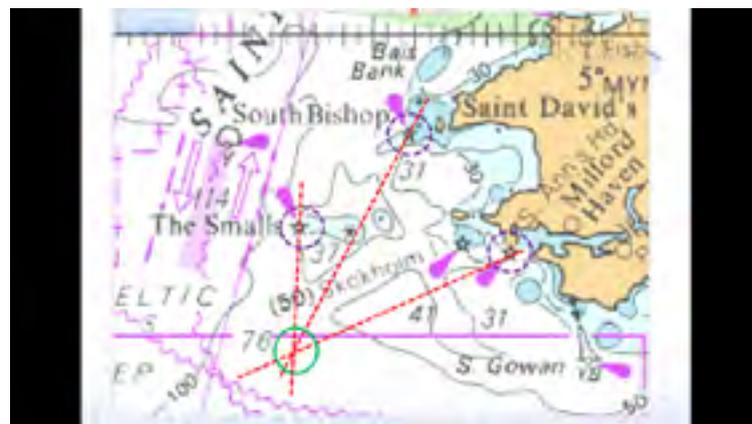


Figure 5 Cocked Hat

This process is laborious and time consuming, but it does have the advantage of getting the navigator to look at real features outside the vessel! Not just a "red line" on an electronic chart that they follow without question.

WHAT ABOUT ELECTRONIC CHART DISPLAY & INFORMATION SYSTEMS?

Electronic Chart Display and Information Systems (ECDIS) are excellent, when used correctly, and have driven innovation in the shipping industry; however, they do have disadvantages such as if you are using a pelorus, you cannot very easily draw on a screen. You can generate an electronic bearing line (EBL) on an ECDIS, but it is a very long convoluted way of providing a position not derived from an EPFS, such as a GNSS fix.

Any system that needs to generate an EBL on an ECDIS

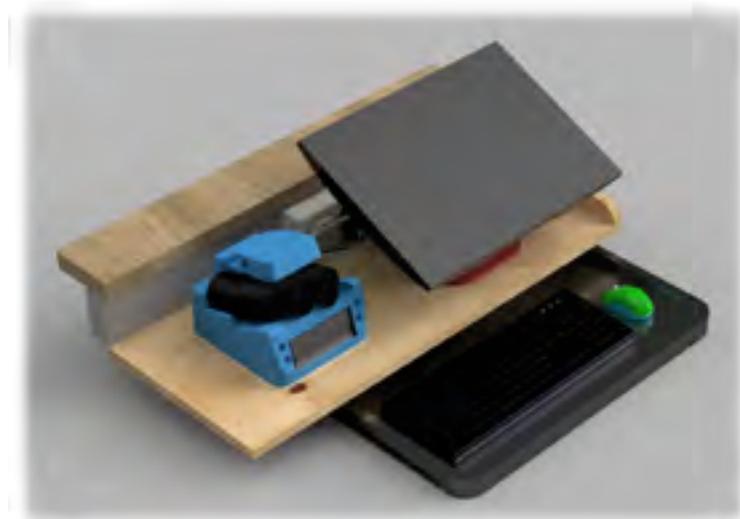
needs to do it electronically; moreover, it needs to do this without having to rely on GNSS for position or time to avoid the issues of GNSS vulnerability: it should be completely independent. It should also be able to carry out optical to electronic integration to ensure that the mariner is looking out of the window. Another GLA requirement was that it should be relatively low cost to make and distribute to enable take up across all users. So the idea of BinoNav® was born. BinoNav® fulfils all these criteria easily, intuitively and quickly, updating the electronic position of the vessel. Moreover, as it has a wireless connection, bearings can be taken anywhere on the bridge of a vessel.

BinoNav® FEATURES

How to use

BinoNav comprises two parts: the “Bino” unit, which is a modified pair of binoculars, and a “base” unit that performs the communication link between the Bino unit and the electronic chart. Pick up the Bino unit from the base unit (see Figure 6 for overall configuration of the BinoNav®). Line up the graticule inside the Bino unit with a charted feature of use, press either of the buttons to automatically generate a line that is relative to the ship’s head, on the displayed electronic chart. As with the standard pelorus, one needs at least another two of these EBL to generate a cocked-hat position on the electronic chart. Using either the touch screen, or the mouse, “hover” over the cocked hat to generate a triangle. Now, right click to drop a marker at the centre of the cocked-hat position and delete all lines. Once the vessel has moved and, dictated by the operating environment at the time, this process can be repeated. When two or more of the markers have been dropped, a line is drawn between the marks, thereby showing a track on the chart.

Figure 6 - BinoNav Device



FEATURES

From the use of the BinoNav® unit as described above, a track is produced on an electronic chart that isn’t derived from an EPFS. This is important as it shows the integration of visual navigation into eNavigation, something which e-Navigation has tried to do from the very beginning, as described by Brian Wadsworth in his earliest vision of e-

Navigation [2].

Another feature of BinoNav® is “Radar mode” for charted feature recognition. This feature draws a continuously moving line on the display that points at the position relative to the ship’s head. This is useful for the recognition of charted features when in unfamiliar territory.

The BinoNav® is very easy to install, with only a connection for power and a connection for a suitable NMEA² data feed for heading.

Currently, the BinoNav® is 3D printed which allows for the quick production of one-off units; however, it clearly isn’t a suitable solution for long production runs and would require a different method of production.

SOMETHING FOR THE FUTURE

R&RNAV has received a lot of interest in the BinoNav® not only from our own mariners, but also from a variety of influencers in the maritime world. We have had a great deal of positive feedback on potential improvements and additional features that we are taking in hand to develop further in the future.

We will also seek to gain approvals through IMO and IEC to integrate BinoNav® with ECDIS, so there will be no need for separate displays (unless on non-SOLAS vessels)

CURRENT GLA INSTALLATIONS

The BinoNav® has been installed on all six GLA vessels.

Conclusions

- e-Navigation is based on the premise of electronic navigation from “berth to berth.”
- Many accidents happen because crews do not look out of the window.
- There is a need for electronic positioning from *non*-GNSS sources.
- BinoNav® integrates visual navigation and electronic navigation through an ECS/ECDIS.
- BinoNav® provides an independent verification of position with or without EPFS.

Intellectual Property

BinoNav® is a registered Trade Mark and carries Unregistered Design Rights. BinoNav® has patents pending.

Acknowledgements

The author thanks the masters, officers and crews of all the GLA vessels for their help and for the benefit of their experience throughout the whole process of the BinoNav®

² National Marine Electronics Association – standard message format for data exchange between shipboard instruments

development. Especial thanks go to those who helped during the various development trials on *ILV Granuaile* and *THV Alert* prior to the mainstream installations.

References

| | |
|------|---|
| [1] | B. Wadsworth, "Marine eNavigation: an Orientation Paper (WEND9-INF4)," UK DfT, London, 2005. |
| [2] | ACCSEAS, "ACCSEAS," [Online]. Available: http://www.accseas.eu/ . [Accessed 19 March 2018]. |
| [3] | EfficienSea, "Efficiensea," [Online]. Available: http://efficiensea.dk/ . [Accessed 19 March 2018]. |
| [4] | EfficienSea2, "EfficienSea2," [Online]. Available: https://efficiensea2.org/ . [Accessed 19 March 2018]. |
| [5] | MonaLisa2.0, "MonaLisa2.0," [Online]. Available: http://www.sjofartsverket.se/en/MonaLisa/MONALISA-20/ . [Accessed 19 March 2018]. |
| [6] | STM, "Sea Traffic Management Validation," [Online]. Available: http://stmvalidation.eu/ . [Accessed 19 March 2018]. |
| [7] | IMO, "Report of the Maritime Safety Committee on its 85th session, Annex 10," IMO, London, 2009. |
| [8] | London Economics, "The economic impact on the UK of a disruption to GNSS," June 2017. [Online]. Available: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/619544/17.3254_Economic_impact_to_UK_of_a_disruption_to_GNSS_-_Full_Report.pdf . [Accessed 08 December 2017]. |
| [9] | Science, Government Office for, <i>Satellite-derived Time and Position: A Study of Critical Dependencies 2018</i> , London: Government Office for Science, 2018. |
| [10] | A. Grant, "GPS Jamming Trials," General Lighthouse Authorities of the UK and Ireland, Harwich, 2008. |
| [11] | The Guardian, "The Guardian," [Online]. Available: https://www.theguardian.com/uk/2002/dec/17/andrewclark.owenbowcott . [Accessed 13 November 2017]. |

Maersk Supply Service and The Ocean Cleanup plastics removal

It was announced in mid- August that Maersk Supply Service will in the coming months provide marine support to The Ocean Cleanup, the Dutch non-profit organization that is developing advanced technologies to rid the oceans of plastics, and install their first clean up system in the North Pacific. This introduction will mark the start of the World's first large-scale initiative for collection of floating plastic debris in the ocean.

Global plastic production has risen steadily since the 1950s with, as an unintended result, an estimated of over 5 trillion pieces of plastic waste now littering all major ocean basins. The Ocean Cleanup, is a globally recognised organisation addressing the problem of plastic pollution, having developed a method in the form of long floating screens to collect plastic debris for recycling.

This fall the first offshore cleaning system, in a partnership between The Ocean Cleanup and Maersk Supply Service, will be installed in the Great Pacific Garbage Patch

(GPGP), located 1200 nautical miles off the coast of San Francisco. The system will be deployed by Maersk Supply Service's AHTS vessel *Maersk Launcher*.

In the words of Steen S Karstensen, CEO of Maersk Supply Service: *'We are truly proud to be supporting the installation of The Ocean Cleanup's first system. Large towing operations have been a part of Maersk Supply Service's work-scope for decades. It is rewarding to see that our marine capabilities can be utilised within new segments, and to support solving such an important environmental issue.'*

Departing on 8 September the system will be delivered 250 nautical miles offshore for a two-week sea trial before towage to the final deployment location at the GPGP. Maersk Supply Service will in addition to the towing and installation, be monitoring The Ocean Cleanup's System 001. Total duration of the campaign is expected to be 60 days.

Karstensen again: *'Part of Maersk Supply Service's strategy is to diversify its business and use its technical capabilities in new areas outside traditional oil and gas. With recently announced other new partnerships in innovative fields with DeepGreen and with Vestas Wind Systems, this collaboration with The Ocean Cleanup is a confirmation we are taking important steps in this direction.'*

A 120 metre unit of the first cleanup system being tested in towing configuration for two weeks in the Pacific Ocean, May-June 2018.



Photo: The Ocean Cleanup ©.

Claus V Hemmingsen, Vice CEO of A P Moller - Maersk and CEO of the Energy division added: *'Maersk contributes to the protection of the ocean environment through enhancing the sustainability of all our activities both at sea and on land. In addition to always taking great care that our operations do not pollute the oceans with plastic, we are also very pleased to take part in the world's first major collection of plastics from the ocean. As a responsible maritime operator, we are committed to ensuring that the oceans can remain a healthy environment for generations to come.'*

The Ocean Cleanup's long-term ambition is to install a fleet of at least 60 floating screens in order to remove 50%

of the 80,000 tonnes of plastic in the Great Pacific Garbage Patch every five years.

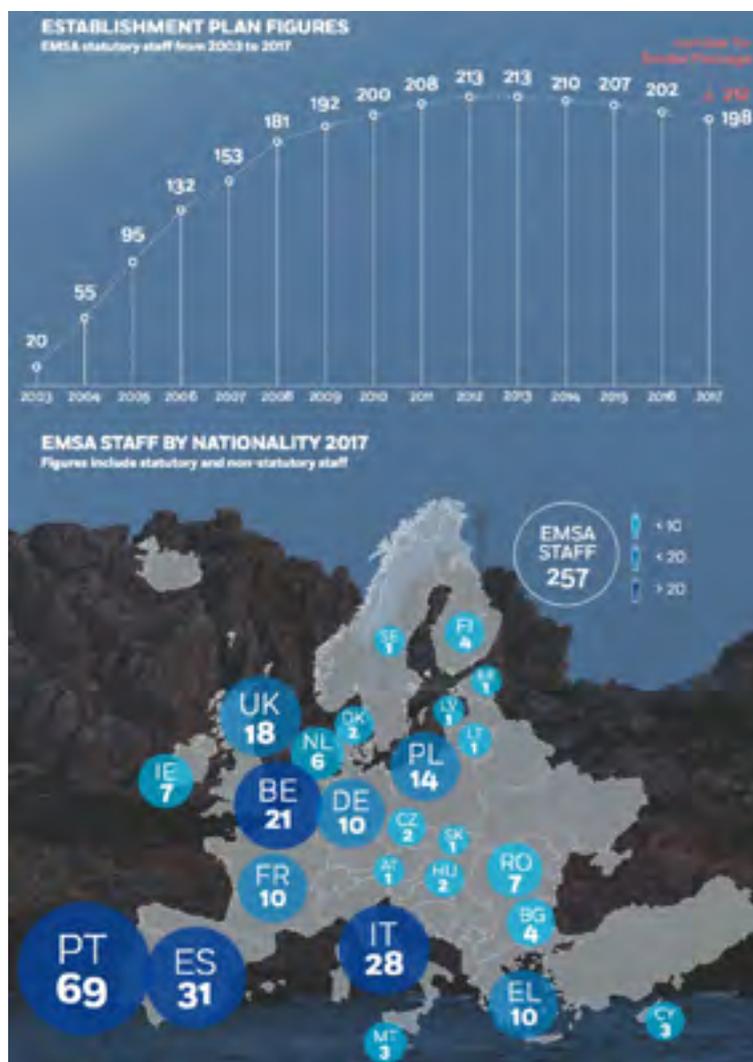
The principle of Ocean Cleanup is shown in an animation here: <http://tinyurl.com/yc8xxtfb>

EMSA facts and figures 2017

EMSA facts and figures 2017 is designed to present a distilled version of the Consolidated Annual Activity Report which is a comprehensive account of how the European Maritime Safety Agency (EMSA) implements the tasks set out in the corresponding Work Programme. This publication is a shortened account of the Consolidated Annual Activity Report which details how EMSA has implemented the annual tasks set out in the work programme contained in the Agency's Single Programming Document (2017-2019).

In his foreword to the document Markku Mylly, Executive Director of EMSA, indicates how the agency's priorities are shaped by several guiding documents, including the founding Regulation (EC) No 1406/2002 as amended, EMSA's five-year strategy, the European Commission's Communication on the programming of human and financial resources for decentralised agencies 2014-2020, and, finally, on Regulation (EU) No 911/2014 on the multi-annual funding for action in the field of response to pollution caused by ships and oil and gas installations.

Level of performance



EMSA's level of performance is linked to the strong relationship it cultivates with its partners: the European Commission, European Fisheries Control Agency, European Space Agency, Frontex, Maritime Analysis and Operations Centre for Narcotics and EU Navfor, as well as each EU member country. Furthermore, there are Iceland and Norway, the Paris MoU countries, and the countries bordering the Mediterranean Sea, Black Sea and Caspian Sea under the European Neighbourhood Policy.

The origins of EMSA

The idea of a European Maritime Safety Agency originated in the late 1990s along with a number of other important European maritime safety initiatives.

EMSA was set up as the regulatory agency that would provide a major source of support to the European Commission and the Member States in the field of maritime safety, security and prevention of pollution from ships.

Additionally, the Agency was established by EU Regulation (EC) No 1406/2002 and subsequent amendments have refined and enlarged its mandate to cover, among other measures, the efficiency of maritime transport.

Tasks and working context

EMSA, as a body of the European Union (EU), sits at the heart of the EU maritime safety network and fully recognises the importance of effective collaboration with many different interests and, in particular, between European and international institutions, Member States' administrations and the maritime industry.

EMSA's activities can be broadly described as:

- Providing technical and scientific assistance to the Member States and the European Commission in the proper development and implementation of EU legislation on maritime safety, security, prevention of pollution by ships and maritime transport administrative simplification.
- Monitoring the implementation of EU legislation through visits and inspections.
- Improving cooperation with and between Member States building capacity of national competent authorities.
- Providing operational assistance, including developing, managing and maintaining maritime services related to ships, ship monitoring and enforcement.
- Carrying out operational preparedness, detection and response tasks with respect to pollution caused by ships and marine pollution by oil and gas installations at the request of the European Commission, providing technical operational assistance to non-EU countries around relevant sea basins.

The Agency's work reflects the spectrum of initiatives

launched by the EU to strengthen Europe's competitiveness and sustainable growth. In this respect, of particular relevance is the contribution to the success of the Growth and Jobs Strategy in terms of supporting the implementation of an attractive framework for quality shipping and quality operators in Europe.

The full document *EMSA facts and figures 2017* is available here: <http://tinyurl.com/ybdqdkr5>

Paris MoU Port State Control and Safety of Navigation

Between 1 September 2017 and 30 November 2017 the Paris Memorandum of Understanding (Paris MoU) on Port State Control (PSC) carried out a Concentrated Inspection Campaign (CIC) on Safety of Navigation including ECDIS jointly with the Tokyo MOU

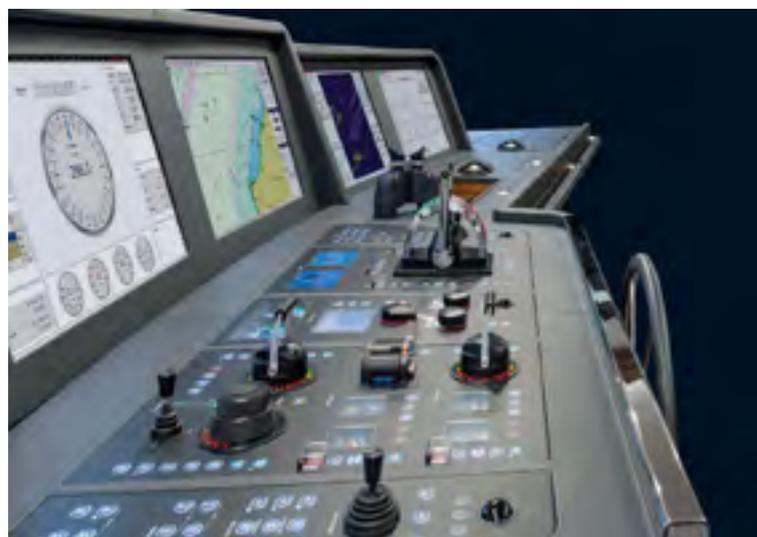
During the CIC, member States focussed on compliance with areas specified by the CIC including ECDIS requirements during PSC inspections.

On completion a document entitled *Report of the 2017 Concentrated Inspection Campaign (CIC) on Safety of Navigation, including ECDIS* was issued on 31 July this year providing results of the campaign for the Maritime Authorities of the Paris MoU.

The report is available here: <http://tinyurl.com/yabtqu6r>

Results for the Tokyo Maritime Authorities will be reported separately.

The objective of the CIC was to check the conformity of safety regulations for ships and the competency of crew involved in navigation operations. Navigation equipment has always been considered an inspection item for PSC inspections.



Paris MoU Port State Control carried out a Concentrated Inspection Campaign (CIC) on Safety of Navigation including ECDIS

Findings

Regulations on navigation equipment have undergone frequent changes, and deficiencies concerning navigation equipment – around 6.21% over a six year period – have been noted as high. During the CIC, a total of 4,288 inspections were carried out involving 4,217 individual ships. The overall CIC detention rate per individual ship was 3.5% (146 ships were detained). The CIC-topic detention rate was 1.1% (47 ships were detained). A total of 32.2% of the detentions were related to the CIC-topic.

The overall number of CIC-topic related deficiencies reported per inspection was 1.1%.

Ships from 87 flag States were inspected during the CIC, of which 63 flag States (72.4%) did not have any CIC-topic related detentions. Of those that did, the highest number of ships detained were from: Panama (9), followed by the Marshall Islands (4), the Russian Federation (4), and Togo (4).

The highest percentage of ships detained however were Albania (50%), followed by Egypt (25%), Ukraine (14.3%), and Togo (10.8%).

The overall number of CIC-topic related deficiencies reported per inspection was 0.18.



Bridge teams are part of the chain ensuring compliance.

In conclusion

The Report concludes that the CIC has provided sound evidence that the industry has achieved a good level of compliance with the specific provisions inspected during the CIC of SOLAS Chapter V requirements pertaining to safety of navigation. The 1.2% rate for CIC-topic deficiency rates (average number of deficiencies reported per inspection) is overall satisfactory.

About the Paris MoU

This organization consists of 27 participating Maritime Administrations and covers the waters of the European coastal States and the North Atlantic basin from North America to Europe.

The current member States of the Paris MoU are:

Belgium, Bulgaria, Canada, Croatia, Cyprus, Denmark, Estonia, Finland, France, Germany, Greece, Iceland,

Ireland, Italy, Latvia, Lithuania, Malta, The Netherlands, Norway, Poland, Portugal, Romania, the Russian Federation, Slovenia, Spain, Sweden and the United Kingdom

States' Mission is to eliminate the operation of sub-standard ships through a harmonized system of port State control.

Annually more than 18,000 inspections take place on board foreign ships in the Paris MoU ports, ensuring that these ships meet international safety, security and environmental standards, and that crew members have adequate living and working conditions.

With regard to PSC the basic principle is that the prime responsibility for compliance with the requirements laid down in the international maritime conventions lies with the shipowner / operator. Responsibility for ensuring such compliance remains with the flag State.

Picture credit: Illustrations are reproduced by kind courtesy of www.parismou.org ©.

ASV Global and TerraSond complete 5639 km unmanned survey

It was announced from Broussard, Louisiana, on 21 August that ASV Global and TerraSond had successfully completed a hydrographic survey off the coast of Alaska.

At 10,649km this survey was carried out by an ASV Global C-Worker 5 unmanned vessel (see illustration) alongside the Q105 survey ship acting as the mother vessel. Fitted with a multibeam echosounder, the C-Worker 5 carried out 53% of the survey.

This operation marks ASV Global and TerraSond's fourth unmanned charting survey for NOAA in as many years. Total unmanned survey lines completed now stand at in the region of 15,000km, it is reported.



Our illustration shows the ASV Global C-Worker 5 unmanned vessel (foreground) with, in the distance, the Q105 survey ship acting as the mother vessel.

Photo kindly provided by ASV Global / TerraSond ©

Throughout the operation the C-Worker 5 was remotely monitored using ASV Global's ASView™ control system from a station on TerraSond's mother ship.

It is understood that the ASView™ equipment used exported .dxf* survey lines from the TerraSond survey planning system to autonomously execute an accurate survey with minimal human intervention.

Larry Karl, VP and General Manager of ASV Global stated: *'We're excited to be supporting TerraSond for the fourth survey season. The C-Worker 5 once again proved itself to be a reliable unmanned vessel for survey with line following precision and excellent sea-keeping ability.'*

In the words of Andrew Orthmann, Charting Programme Manager, TerraSond: *'The ASV C-Worker 5 was once again advantageous to our charting work for NOAA along a remote stretch of Aleutian Islands coastline. It was productive in an offshore capacity, but also effective when working close to rugged, rocky shoreline with an abundance of uncharted navigational hazards. It allowed us to reduce risk to our personnel while still obtaining the seafloor data important to our client.'*

About ASV Global

ASV Global is a leading developer of autonomous vessel technology. The company has delivered more than 100 systems which are now deployed all over the world in the service of the defence, oil & gas and scientific sectors.

* Drawing Exchange Format file developed by Autodesk as a type of universal format for storing CAD models. The DXF format is similar to the AutoCAD Drawing Database.

Sir Adrian Swire

We were saddened to learn of the death of Sir Adrian Christopher Swire on 24 August 2018 at the age of 86.

He was Chairman of the Swire Group and President of the UK Chamber of Shipping from 1980-81 and Chairman of the International Chamber of Shipping from 1982-87. His family roots were in shipping, particularly in Hong Kong and Shanghai, and as traders and in sugar refining. China Navigation was the shipping arm and business extended to the Pacific islands, saw the introduction of containers and diversification with an offshore support vessel fleet.

Sir Adrian's colourful career extended to aviation with a stake in Cathay Pacific and property which grew into the Swire Group, the international conglomerate we see today.

He has been quoted as saying that his heart always lay with shipping: *'If I can claim to have ever had any sort of profession, however dubious, it is as a shipowner.'*

Your editor was keen to get a job with China Navigation when in his mid-twenties and on a visit to Hong Kong. When advised by the Personnel Manager that their ships did not call at Hong Kong very often, he changed his mind!

UK Government statements on Brexit still leave questions unanswered

Freight forwarders and shipowners give their views

On 23 August the UK Department for Exiting the European Union (DExEU) supplied information to businesses on trading with the EU if there is no Brexit deal.

As announced by the Prime Minister and Secretary of State for Exiting the European Union on 18 July 2018, the government will be publishing a series of 25 technical notices during August and September to set out information to allow businesses and citizens to understand what they would need to do in a no-deal scenario, so they can make appropriate plans and preparations.

Now the first of these notices regarding many aspects of trading including import / export, banking and insurance has been published and more will appear during September, it is understood. See here: <http://tinyurl.com/ycpepldt>

A recent departmental statement indicated that given the mutual interests of the UK and the EU in securing a negotiated outcome, a scenario in which the UK leaves the EU without agreement, a no-deal scenario, remains unlikely.

Revenue & Customs advice

It is reported that interested parties may register for the HM Revenue & Customs' EU Exit update service. On www.gov.uk readers may search for 'HMRC videos, webinars and email alerts', click to register to get business help and education emails, enter an email address and select 'EU Exit'.

The view of the logistics professionals

In the words of Robert Keen, director general of the British International Freight Association (BIFA): *'As most of the visible trade that takes place between the EU and the UK is managed by freight forwarders and logistics professionals on behalf of traders, some of the content of the information could be considered rather patronising as those freight forwarders are already aware of many of the issues of concern to businesses trading with the EU in the event of no deal.'*

'What BIFA members actually need is clarity on the arrangements that will be in place in the event of a no deal scenario.'

'How will we deal with a massive increase in the customs entries that will be required in the event of a no deal; where will we source the huge number of extra staff that may be required to process such a large increase in entries on a new and as yet unproven computer system; where will HMRC source the extra staff that will be needed to process entries and expedite their training which would normally take up to one year, how do we deal with large increase in costs that our customers are unlikely to be expecting and

might be unwilling to accept?'

'These are just a few of the additional questions that today's Government statement, which suggests that in a 'no deal' scenario full-blown customs controls will apply to two-way trade between the EU and the UK immediately, do not answer.'

'BIFA has already been vocal on our concerns about the capacity and readiness of UK customs systems and port infrastructure to cope with that outcome.'

And the shipowners' view

Of progress so far, in the view of the Chamber of Shipping there is still much to be done and detail to be ascertained. Most importantly, the Chamber on its website (www.chamberofshipping.com) indicated that Government needs to accelerate the pace and sustain the momentum with which it is providing guidance on Brexit.

However that being said, the Chamber felt that the technical notices of 23 August are slender on detail of what will happen and how plans for Brexit will be executed in the event of no-deal.



Moreover, the UK Chamber is concerned that the Government is in danger of placing too great a responsibility on industry to figure out how business will be carried out, particularly with respect to supply chains and cross-border trade. It stressed that Government should also recognise the need to improve the way that Government agencies work together and collaborate, which would smooth out the transition process in any Brexit scenario.

Bob Sanguinetti, Chief Executive of the UK Chamber of Shipping, commented: *'Fundamentally, we are against the concept of a no-deal Brexit as it is likely to be the most disruptive outcome for trade. Businesses on both sides of the UK-EU border need a deal and agreement on terms. As the technical notice on Trade confirms, a no-deal Brexit would mean reverting to World Trade Organisation rules for cross-border customs and processes. Even with this guidance, WTO rules would be disruptive for the shipping industry and businesses on both sides of the UK-EU border.'*

'We are encouraged by the releases we have seen today – these technical notices demonstrate the scale of planning that Government is undertaking and the Chamber is

pleased to see the Government give appropriate consideration to potential risks for the shipping industry.

'In particular, we look forward to receiving guidance on key issues such as port health checks and seafarer rights.'

'That being said, the notices are a stark reminder that no deal must be avoided at all costs if we are to preserve the ease of trading across the EU border.'

'In any case, we will continue to work closely with government to identify the practical measures needed to help keep trade flowing smoothly for the benefit of UK businesses and consumers alike.'

Port of Hamburg

Dredging of the fairway on the Outer and Lower Elbe may commence

It was reported from the Port of Hamburg on 23 August that the third supplementary planning procedure for fairway adjustment on the Outer and Lower Elbe has been completed.

Undoubtedly this is good news for shipping and Hamburg's port customers throughout the world. The planning procedure for the adjustment of the fairway has been completed with the supplementary planning approval. A

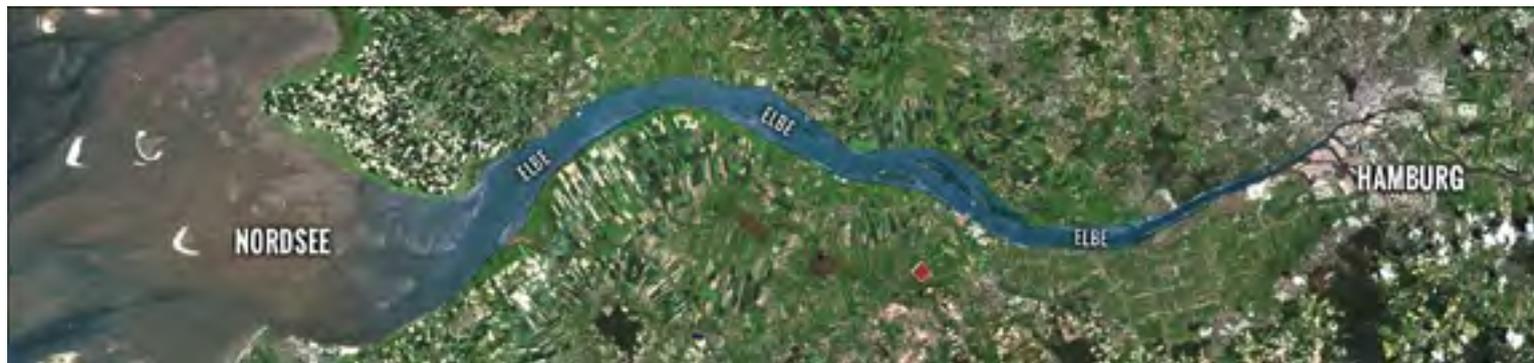


Chart extract reproduced from www.hafen-hamburg.de © Port of Hamburg

third supplementary planning procedure requested by the Federal Administrative Court has been conducted by the planning agencies responsible for the major project. The legal preliminaries are therefore in place that will enable construction to start.

In the words of said Axel Mattern, Joint CEO of Port of Hamburg Marketing: *'This is very good news for our trading and shipping customers worldwide and for the whole Hamburg Metropolitan Region.'*

'We have waited a long time for today and are now hoping for rapid implementation,' added Ingo Egloff, his Executive Board colleague.

The port can already receive large ships and can handle the largest container vessels with a slot capacity of over 20,000 TEU.

Suitable berths and terminal equipment make that possi-

ble now. Irrespective of the tide, after the fairway adjustment, ocean-going ships will be able to leave Hamburg with a draft of 13.50 metres; and using the flood tide, with one of 14.50 metres. For shipping, the fairway adjustment will provide one extra metre of draft and the related decisive advantages. Containerships will be able to transport around 1800 TEU per call. The 'passing box' downstream from Hamburg will make the Elbe navigable for large ships in both directions without the existing restrictions, it is understood.

Hamburg is Germany's largest universal port and the third biggest container port in Europe. Technical innovations and high productivity, along with short lay times at its terminals and an excellent inland rail network emphasise Hamburg's importance for worldwide transport chains.

First Mayor of Hamburg Dr Peter Tschentscher commented: *'For Germany's foreign trade, the Port of Hamburg is its gateway to the world. It is an important hub for global goods flows and contributes greatly to Hamburg's economic strength. With today's supplementary planning decision, we have full legal planning approval for the adjustment of the fairway that will make the Port of Hamburg considerably more competitive internationally.'*

Senator Frank Horch: *'Since February 2017, we have worked intensively on eliminating the Court's final reservations. The results of this work are to be found in the resolu-*

tion issued today. We now have planning permission: We will begin with explosive ordnance and preliminary construction measures in the next few days. All tendering has already been completed. The partner companies can be engaged to start work immediately.'

As an administrative decision, the Third Planning decision can, of course, be legally challenged, just like any other. This would require an attempt to lodge an appeal with the Federal Administrative Court.

About the Port of Hamburg

Hamburg is Germany's largest seaport and is an indispensable element of its logistics infrastructure. Around 9 million containers are handled annually in the Port of Hamburg. About one-third of these remain as local cargo in the Metropolitan Region, the remainder are transported throughout the Federal Republic and the European hinterland.

The Port of Hamburg is also a significant factor for the German national economy in creating jobs. Nationwide around 260,000 jobs depend upon the port, and in the Metropolitan Region around 150,000.



Photo: Port of Hamburg / Dietmar Hasenpusch ©

If its competitiveness is to be maintained and its extraordinarily good prospects for development fully exploited, it is essential that ever-larger ocean-going vessels, primarily container ships and bulk carriers, should be able to call at the port without forfeiting cargo or facing long delays. That makes the state of the expansion of the Port of Hamburg's access from the sea of crucial importance.

See also www.hafen-hamburg.de

Sailors' Society / ICMA Ship Visitor app

Half a million seafarers have benefited from an app that helps them as they move from port to port around the world, according to the charity that invented it.

Developed by international maritime charity Sailors' Society, the International Christian Maritime Association (ICMA) Ship Visitor app is used internationally by ten maritime welfare organisations, who provide chaplaincy to seafarers who are far from home.

Sailors' Society's CEO Stuart Rivers commented: *'Real-time reporting enables port chaplains and ship visitors to deliver more joined-up care to the seafarers they meet.'*

'It is encouraging that the Ship Visitor app has reached this milestone and is testament to the collaborative work between the maritime welfare providers who have embraced its potential to improve care provisions.'

The 500,000th seafarer visited using the app docked at Invergordon port in recent weeks and was met by Sailors' Society port chaplain Drew Anderson.

The app enables chaplains and ship visitors to report their activities in real time and maintains a history of ship visits and support provided to seafarers. Subject to confidentiality and data protection policies, this information can be

used to provide ongoing care and assistance as ship and crew continue its voyage.

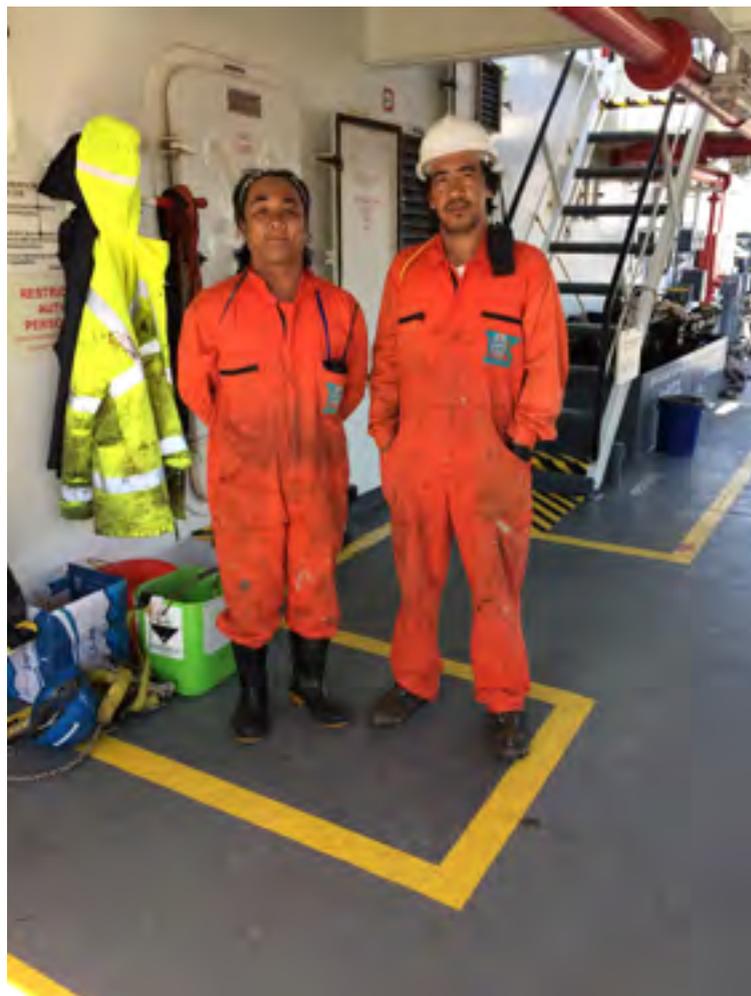
Rivers added: *'From the app we can see the sort of welfare cases our team are supporting on a daily basis, from piracy and abandonment to visiting seafarers in hospital. It gives us a more detailed picture of the needs of seafarers – and allows us to tailor our provision accordingly.'*

Since its launch in September 2015, there have been many examples of how the Ship Visitor app has improved welfare provision.

Rivers again: *'Marc Schippers, our port chaplain in Antwerp, was visiting a ship and found there was a negative atmosphere on board. Some of the crew told him there had been arguments between themselves and officers.'*

'The ship was about to depart for Southampton and Marc had to disembark, but before he did, he assured the crew someone would visit them when they reached their next port.'

'He logged his visit into the app and highlighted the situation to his colleague in Southampton, who was then able to meet the crew upon their arrival.'



Half a million seafarers have benefited from a revolutionary app. Our picture shows two seafarers in a vessel visited using the Ship Visitor app.

Photo: www.sailors-society.org ©

'The advance warning of the situation enabled the chaplain in Southampton to offer appropriate support and services, including transporting the seafarers into the city for a well-earned break from their duties and the intensity of life on board.'

The network of organisations using the app has grown since it launched in 2015. Furthermore, Sailors' Society now has an affiliate programme for maritime welfare providers in North America, which includes: Houston International Seafarers' Centre, the Ministry to Seafarers in Montreal, Saugenay International Seafarers' Ministry and most recently International Seafarers' Center in Brunswick, Georgia.

Jan Kubisa from the Houston International Seafarers' Centre added: *'All the chaplains are using the app on a daily basis and it is difficult to imagine our daily ship visits without it.'*

In conclusion Rivers said: *'As Sailors' Society looks to continue expanding its welfare offering throughout North America, we hope that the Ship Visitor app can help to revolutionise the way seafarers visiting ports across the United States and Canada are supported.'*

EU NAVFOR Somalia Operation Atalanta

EU Council prolongs the Operation and decides on new headquarters and new Operation Commander



On 30 July the Council of the European Union extended the mandate of EU NAVFOR Somalia Operation Atalanta until 31 December 2020.

The Council also decided to relocate the European Union Naval Force (EU NAVFOR) Operational Headquarters from Northwood (UK) to Rota (Spain), and to Brest (France) for the Maritime Security Centre Horn of Africa (MSCHOA) as of 29 March 2019. It appointed Vice-Admiral Antonio Martorell Lacave from the Spanish Navy as new Operation Commander to take command from Major-General Charlie Stickland on the same date.

It is understood that this relocation and change in command are required due to the UK's decision to withdraw from the EU.

In conclusion, the Council allocated a budget of €11.777 million for the common costs of the operation for the period 1 January 2019 to 31 December 2020.

EU NAVFOR Operation Atalanta contributes to the deterrence, prevention and repression of acts of piracy and armed robbery off the Somali coast. The operation is part of the EU's comprehensive approach for a peaceful, stable and democratic Somalia.

Operation Atalanta protects vessels of the UN World Food Programme (WFP) and other vulnerable shipping, monitors fishing activities off the coast of Somalia and supports other EU missions and programmes in the region.

Furthermore, the ongoing protection of vulnerable shipping gives confidence to the WFP in delivering vital aid to Somalia. This mandate extension is a standard approach that allows the EU to regularly review its operations and extend as required.



The Spanish Navy's patrol vessel Meteoro was conducting counter-piracy patrols along the Somali coast as part of the European Union's efforts to help make the waters in the Indian Ocean and Gulf of Aden safer from pirate attack. The Spanish sailors and marines continue to take every opportunity to meet and talk to fishermen off the coast of Somalia about the concerns they have and the role of the EU Naval Forces in the area.

Photo: EU NAVFOR ©.

The mission is currently supported by 19 EU nations and two partner nations, with aircraft and warships from Spain, Italy and Germany and Autonomous Vessel Protection Detachments rotating between Lithuanian, Croatia, Serbia and Montenegro. There is also a Support Element group deployed in Djibouti plus a network of liaison officers across the region.

END

Starting on the next page a report of the activities of IMO.

A report of IMO Workshops, Meetings and other events

April to August 2018

These items are based on material kindly provided by www.imo.org

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Maritime security planning in the Gulf of Guinea

In August IMO supporting countries* from the Gulf of Guinea region met to discuss their plans to enhance maritime security. Participants from ten States took part in a workshop in Monterey, USA from 6-10 August on developing and refining their work plans. This included introducing new topics directly related to the successful implementation of maritime security strategies – such as negotiation skills for secure political and inter-Ministerial cooperation. IMO was represented by Gisela Vieira.

This workshop, which included a field trip to the US Coast Guard Monterey Station, was organized by the US Department of State funded Centre for Civil Military Relations (CCMR). It is the second of three events. A workshop in Abidjan was held in March 2018 and the final event is due to take place in Yaoundé in March 2019.

Readers wishing to learn more about IMO's maritime security work are invited to see here: <http://tinyurl.com/y939syd8>

* Participants from Benin, Cabo Verde, Cameroon, Cote d'Ivoire, Gabon, Ghana, Guinea, Liberia, Senegal and Togo, as well as international partners such as INTERPOL and the UK Foreign and Commonwealth Office attended.

IMO Security Workshop Asia

IMO reported on 27 July that it had recently held a workshop to promote secure shipping in Asia and the latest of these events, for Asian countries, took place at Ningbo, People's Republic of China from 23 to 27 July. Here more than 50 participants took part representing port and designated authorities and other national agencies from around Asia.

The main aims of the workshop were to **i)** review implementation of maritime security in the region and evaluate new or evolving threats; **ii)** promote cooperation between port and designated authorities of participating countries through discussion and sharing experiences and best practices related to maritime security; **iii)** identify challenges to ships, ports and people for the purpose of facilitating and forging secure and efficient maritime transport; and **iv)** to share best practices, experiences and recommendations.

This sub-regional workshop was organized in collaboration with the Maritime Safety Administration of the People's Republic of China (China MSA). IMO was represented by Javier Yasnikowski and Yuji Okugawa.

In addition, a special session with the theme Connecting

Ships, Ports and People was held on 26 July, with additional national participants, to strengthen cooperation across all maritime sectors, driven by policy, strategy and technological innovation, in order to forge a secure and efficient maritime transport sector.

Mauritius signs Jeddah Amendment on illicit maritime activity

At the end of July IMO reported that Mauritius had become the 15th signatory* to the Jeddah Amendment to the Djibouti Code of Conduct – the instrument developed and adopted by countries in the Western Indian Ocean and Gulf of Aden. That Code has been a key factor in repressing piracy and armed robbery against ships operating in the region.

This Amendment significantly broadened the scope of the Djibouti Code when it was adopted at a high-level meeting in Jeddah, Saudi Arabia in January last year (2017). The instrument covers measures for suppressing a range of illicit activities, including piracy, trafficking of arms and in narcotics, illegal trade in wildlife and oil bunkering, crude oil theft, human trafficking, human smuggling, and illegal dumping of toxic waste.

On 26 July HE Girish Nunkoo, High Commissioner of Mauritius in London, deposited the Jeddah Amendment Instrument with IMO Secretary-General Kitack Lim at IMO Headquarters.

* Comoros, Djibouti, Ethiopia, Jordan, Kenya, Madagascar, Maldives, Mauritius, Mozambique, Saudi Arabia, Seychelles, Somalia, United Arab Emirates, United Republic of Tanzania, and Yemen

Training to reduce emissions in Malaysian ports

From 24 to 26 July Malaysian maritime officials toured the Sarawak port of Bintulu as part of an IMO training package helping countries to reduce emissions in ports. Here 30 participants from authorities and ports across Malaysia took part in the event with the aim of gaining improved expertise on assessing emissions in ports and devising strategies to address those emissions. The result will be better air quality for local populations and a contribution towards the battle against climate change.

This training took place under the strategic partnership between the IMO-run GloMEEP project on energy-efficiency and the International Association of Ports and Harbors (IAPH). It was hosted by the Marine Department Malaysia and Bintulu Port Authority, and delivered by a team of IMO consultants from the Port of Los Angeles and Starcrest Consulting Group.

Training for Honduran maritime security officials

Honduras hosted a workshop on the IMO regulation setting out preventive security measures in case of threats to ships and port facilities – the International Ship and Port Facility Security (ISPS) Code. The event held in Puerto Cortez, Honduras from 23-27 July was a successor to a 2017 exercise in which the country's specific technical assistance

needs were identified.

Designated authority and port facility security officers were able to improve their knowledge and understanding of how to implement the relevant provisions in the ISPS Code and SOLAS Chapter XI-2. Participants also reviewed the practical guidance contained in the *Guide to maritime security and the ISPS Code*, which addresses security responsibilities of governments, national authorities, port facilities and operators.

This workshop was conducted in collaboration with the National Commission for Port Security of the Republic of Honduras and assisted by a team of IMO consultants.

Maritime security in the 21st century

IMO Secretary-General Kitack Lim highlighted the Organization's work and response to a changing maritime security landscape when speaking at the Maritime Security in the 21st Century symposium at the Brazilian Naval War College, Rio de Janeiro on 20 July. He said: '*Threats to the port and shipping sectors are constantly evolving and so is IMO's response.*' He emphasized that '*IMO is addressing the digital revolution in all aspects of its work.*'

Maritime Autonomous Surface Ships (MASS), was one of the issues raised by the Secretary-General, who said that IMO is currently assessing regulatory aspects in this field, which includes considering the subject from the aspects of safety, security, legal liability, responses to incidents and marine environment protection. The Secretary-General also highlighted the organization's growing concerns about cyber security, and the potential vulnerability of a vessel's onboard information and operational technology systems.

Lim went on to emphasize that the maritime industry can both drive and support a growing economy and help achieve a truly better world, and that, therefore, safe, secure shipping is key to a far wider constituency than just the industry itself.

In a technical side-event on MASS, IMO's Chris Trelawny also spoke about the issue, giving an outline of how the regulatory process at IMO works, and that a correspondence group looking into the issue had been established at IMO's Maritime Safety Committee ([MSC 99](#)) and started its work. IMO welcomes input from its Member States into the group, which is undergoing a scoping exercise on the current regulatory landscape relating to MASS.

Security assessment in Georgia

IMO's rules and regulations for suppressing unlawful acts against the safety of navigation can be seen in the wider context of the global fight against terrorism. The United Nations Counter-Terrorism Committee Executive Directorate (UNCTED) carries out assessment visits to countries to assess their compliance with various international security instruments and UN Security Council resolutions.

IMO took part in a follow-up visit to Tbilisi, Georgia from 16-

18 July organized by UNCTED, particularly to assess the country's implementation of the special maritime security measures in IMO's SOLAS chapter XI-2, the ISPS Code, as well as the SUA Convention* and Protocols.

Assessment included a series of meetings with Georgian government agencies involved in maritime security, including authorities for maritime, defence, law enforcement, customs and coast guard. Talks were conducted alongside partner organizations, including the United Nations Office on Drugs and Crime (UNODC), The International Organization for Migration (IOM), the World Customs Organization (WCO) and Interpol. The One UN inter-agency approach underscores that national security and counter-terrorism management must include the maritime sector in national security policies, procedures and response plans.

IMO's Henrik Madsen represented IMO during the assessment, which followed a previous assessment (UNCTED 2007) as well as a prior IMO-organised national maritime security workshop in 2014. This event comes ahead of Georgia hosting an international maritime forum in September 2018, to be held in the port city of Batumi, in which IMO will be participating.

*Convention for the Suppression of Unlawful Acts Against the Safety of Maritime Navigation.

Argentina

Early in July IMO's work supporting countries to reduce emissions in ports was welcomed in Argentina, the seventh country to benefit from the organization's port emissions training programme.

At the IMO workshop in Buenos Aires around 40 personnel working in the country's maritime sector underwent training on how to assess air emissions in ports and to develop strategies to address emissions from different sources,

Training took place under a strategic partnership between the IMO-run GloMEEP* project on energy-efficiency and the International Association of Ports and Harbors (IAPH).

This event was hosted by *Prefectura Naval Argentina* and delivered by a team of IMO consultants with staff from the Port of Los Angeles.

*GloMEEP is a GEF-UNDP-IMO project aimed at supporting the uptake and implementation of energy efficiency measures for shipping, thereby reducing greenhouse gas emissions from shipping. The GloMEEP Project is being executed by a dedicated Project Coordination Unit (PCU) established within the Marine Environment Division of IMO. IMO is a specialized agency responsible for safe, secure and efficient shipping and the prevention of pollution from ships. See here: <http://glomEEP.imo.org/>

Workshop to ensure safe and secure regional waters: Jeddah

Signatory States to an agreement aimed at repressing piracy, armed robbery and illicit maritime activity in the western Indian Ocean and the Gulf of Aden Area have agreed that building response capability and information sharing are vital steps towards achieving a more safe and

secure maritime environment. This was reported from IMO on 11 May.

Signatories to the revised Code of Conduct concerning the repression of piracy, armed robbery against ships and illicit maritime activity in the western Indian Ocean and the Gulf of Aden Area, known as the Jeddah Amendment to the Djibouti Code of Conduct 2017, met in Jeddah, Saudi Arabia, for a high level workshop. This ran from 7-10 May for all signatory States and States eligible to sign the Jeddah Amendment, donors and implementing partners.



This workshop, convened by IMO with the theme: Taking Action to Enhance Regional Maritime Security, discussed the next steps in implementing the Djibouti Code of Conduct and its 2017 Jeddah Amendments, in order to strengthen regional cooperation and information sharing to ensure safe and secure regional waters.

Information sharing could include data related to maritime crimes, best practices, legal frameworks, training programmes and national initiatives that will lead to enhanced maritime domain awareness – the effective understanding of what happens at sea and effective maritime security.

Participants agreed that piracy off the coast of Somalia is contained, but continues to be a threat. A long term comprehensive solution is required that also addresses other maritime security issues. These could include: transnational organised crimes, including smuggling of people, trafficking of drugs, weapons, wildlife, and charcoal; illegal, unregulated and unreported (IUU) fishing; violent extremism and maritime terrorism, including the risk of attacks against oil and gas installations and transport systems. Delegates also emphasized the need to consider good maritime security as a prerequisite for a well-developed maritime sector in the region and for a thriving blue economy within the context of sustainable development goals.

Furthermore, participants re-emphasised their commitment to developing capability, legal frameworks and inter-agency cooperation at national level as the foundation for effective regional cooperation in tackling maritime insecurity. This will allow countries to develop and strengthen the opportunities provided by the blue economy for the well-being of their

respective population.

Following a range of presentations, participants and observer delegations witnessed a large-scale exercise and demonstration by the Border Guard of the Kingdom of Saudi Arabia which included a number of maritime focussed scenarios. Briefings by all participants on national achievements and plans followed and provided an opportunity for experience sharing and lessons learnt to enhance alignment of national plans with regional plans and to facilitate requests for external assistance from development partners.

Participants and observer delegations also benefitted from a visit to the state-of-the-art Jeddah Maritime Rescue Coordination Centre and received a demonstration of the MRCC's capability. Delegates also visited the excellent training facilities and instructors at the Mohammed bin Naif Academy for Maritime Science and Security Studies. These have facilitated the provision of high quality training to maritime security practitioners throughout the region.

This workshop, held at the Academy was hosted by the Border Guard of the Kingdom of Saudi Arabia, by kind permission of HRH Prince Abdul Aziz bin Saud bin Naif, Minister of Interior of the Kingdom of Saudi Arabia. It was opened by Vice-Admiral Awwad Eid Al-Balawi, Director General of the Border Guard of the Kingdom of Saudi Arabia, and Chris Trelawny, Special Advisor to the Secretary-General of IMO.

The high-level meeting was attended by representatives from: Comoros, Djibouti, Egypt, Ethiopia, France, Jordan, Kenya, Madagascar, Maldives, Mauritius, Mozambique, Oman, Saudi Arabia, Seychelles, Somalia, South Africa, Sudan, United Republic of Tanzania and Yemen.

Observers attended from: Denmark, Japan, Norway, United Kingdom and United States.

Representatives also attended from the United Nations Office of Drugs and Crime (UNODC) and the European Union, the Indian Ocean Commission, the International Criminal Police Organisation – INTERPOL, the East Africa Standby Force and the One Earth Future Foundation.

Finally, participants welcomed the capacity building work of international organisations, including IMO, INTERPOL, and the UNODC, as well as non-governmental organizations, including the One Earth Future Foundation's Stable Seas project and the SafeSeas initiative led by Cardiff University. Donors were thanked, in particular Japan and the Kingdom of Saudi Arabia for their contributions to the Djibouti Code of Conduct Trust Fund administered by IMO.

Further donations were requested to support the implementation of the Code, including assistance to the Djibouti Regional Training Centre.

Training to combat maritime crimes in West Indian Ocean and Gulf of Aden

A regional train-the-trainer course on maritime law enforcement was held at the Mohammed Bin Naif Academy for

Maritime Science and Security Studies in Jeddah, Saudi Arabia from 29 April-10 May.

This IMO-led course aimed to provide officials with the necessary skills to be able to train colleagues in their own countries in dealing with piracy and other crimes at sea.

Attended by 19 officials from 18 signatory States* to the Djibouti Code of Conduct and Bahrain, the course was in line with the objectives of the Jeddah Amendment to the Djibouti Code of Conduct. Article 14 of the Jeddah Amendment calls for regional cooperation on the development and promotion of training and educational programmes on security-related matters in respect of the management of the marine domain, particularly for the maintenance of safety and law and order at sea, and the preservation and protection of the marine environment and sustainable use of marine living resources.



In adopting the Jeddah Amendment in January 2017, the region sought a long term comprehensive solution that would address strategic threats, including terrorism against oil and gas installations and transport systems, trafficking in drugs, weapons and people, and illegal, unregulated and unreported fishing. The value of a well-developed maritime sector and blue economy has been recognized within the context of sustainable development goals and the prevention of violent extremism.

This course is the second of three activities to be implemented jointly between IMO and the Saudi Border Guard, during 2018, with financial assistance from Saudi Arabia.

In March, a three week-long regional training course focused on combating piracy and other threats to safety and security at sea. The third event was a high level workshop held from 7-10 May for all signatory States to the Jeddah Amendment, donors and implementing partners.

*Participating States are: Bahrain, Comoros, Djibouti, Egypt, Jordan, Kenya, Madagascar, Maldives, Mauritius, Mozambique, Oman, Saudi Arabia, Seychelles, Somalia, South Africa, Sudan, United Republic of Tanzania and Yemen.

France accedes to treaty on unlawful acts at sea

France has become the latest country to sign up to the IMO treaty dealing with unlawful acts against the safety of maritime navigation.



Known as the SUA Protocol this document covers acts including the seizure of ships by force, acts of violence against persons on board ships, and the placing of devices on board a ship which are likely to destroy or damage it.

Ambassador Nicole Taillefer, Permanent Representative of France (pictured above) to IMO, met IMO Secretary-General Kitack Lim at IMO Headquarters, London, to deposit the instruments of accession on 9 May.

Jamaica: training to address emissions in port

Key personnel working in Jamaica's maritime sector have undergone IMO training on how to assess air emissions in ports and develop strategies to address emissions from different sources. Thirty participants from the country's maritime administrations, port authorities, port terminals and academia took part in the event, held in Kingston, Jamaica from 1-3 May.

Assessing emissions in ports can help countries to devise strategies to address those emissions, leading to better air quality for local populations. Jamaica is the second country to benefit from the new three-day training package, following roll-out in China in April. This package was developed under IMO's energy-efficiency project, in collaboration with the International Association of Ports and Harbors (IAPH).

Such training aims to support countries in quantifying emissions in ports through the development of port emissions assessments (both ocean and land-based, including emissions from cargo handling equipment, trucks, rail and so forth) and providing guidance on how to develop strategies for port emission reduction.

This workshop included a visit to Kingston Port – Jamaica's largest multi-user port. It was hosted by the Maritime Authority of Jamaica (MAJ) and Kingston Wharves Ltd and run by a team of IMO consultants.



Halting biodiversity loss - a key challenge

In every region, the survival of species is increasingly threatened, both at sea and on land. IMO's role in protecting marine biodiversity was highlighted at the United Nations Environment Management Group (EMG) Nexus Dialogue on Biodiversity held in Geneva, Switzerland on 2 / 3 May.

Biodiversity Mainstreaming in the context of Human Security and Wellbeing was the theme of the meeting, involving more than 20 different entities, primarily from within the UN system.

IMO's Megan Jensen participated in the meeting and reminded participants of IMO's role in supporting the targets of the United Nations Sustainable Development Goal (SDG) 14 on the oceans, and in helping to address biodiversity loss, through its shipping regulations and recommendations.

Non-native species can be spread from ocean to ocean via ship. They may be carried by way of ballast water or attach to the hull and other parts of a ship (fouling).



IMO's Ballast Water Management (BWM) Convention, which seeks to prevent the transfer of potentially harmful invasive aquatic species in ship's ballast water, entered into force in 2017. IMO's Biofouling Guidelines address bio-

invasions via ships' hulls. Furthermore, the IMO treaty on Anti-fouling Systems helps ensure that any systems used to combat fouling on ships does not harm the environment.

IMO has implemented the GEF-UNDP-IMO GloBallast project, which supported countries to ratify and implement the BWM Convention, and is currently preparing a new global project (the GEF-UNDP-IMO GloFouling Partnerships Project) to support the implementation of the biofouling guidelines. Ms Jensen highlighted the need to raise awareness of biodiversity issues across many agencies within governments and across many different non-governmental stakeholders, each with differing priorities.

The Nexus Dialogue provided the opportunity to explore how biodiversity could be successfully communicated in various settings. UN agencies and other stakeholders were able to begin exploring how the biodiversity framework could be developed after 2020, beyond the so-called Aichi Targets.

Aichi Targets, adopted under the auspices of the UN Convention on Biological Diversity, set a series of targets to be achieved by 2020, including raising awareness of biodiversity issues and taking steps to preserve biodiversity.

The HLPF is the main United Nations platform on sustainable development and it has a central role in the follow-up and review of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals (SDGs) at global level. IMO's work to protect the marine environment has particular relevance for SDG 14 (oceans) while halting biodiversity loss, a key target under SDG 15.

IMO highlights GHG strategy at Bonn Climate Change talks

IMO has reported on the recent landmark adoption of an initial IMO Strategy on reduction of GHG emissions from ships at the Bonn Climate Change Conference held from 30 April-10 May. IMO's Edmund Hughes informed the opening of the plenary session that the vision set out in the strategy confirms IMO's commitment to reducing GHG emissions from international shipping and, as a matter of urgency, to phasing them out as soon as possible in this century.



Hughes highlighted further progress on related matters, including entry into force of mandatory requirements for the collection and reporting of ship fuel oil consumption data and the official launch of the Global Maritime Technology Cooperation Centres (MTCC) Network. IMO planned to report to the 48th session of the Subsidiary Body for Scientific and Technological Advice (SBSTA), which was under way at the time, also in Bonn.

Momentum for treaty covering hazardous and noxious cargo

The IMO treaty covering compensation for damage caused by Hazardous and Noxious Substances (HNS) transported by sea was the subject of a workshop held at IMO HQ in London on 26 / 27 April. The event focused on helping governments to understand and implement the HNS Convention, and follows excellent progress made earlier that week when Canada and Turkey signed up to the treaty. This brings the total contributing cargo to 28.7 million tonnes – 72% of that needed for the treaty to enter into force.

By addressing practical issues raised by States implementing the Convention, the workshop was aimed at enabling further governments to sign up to the treaty. These issues include how to report on contributing cargo – a step that also needs to be taken prior to a State being able to ratify or accede to the Convention.



HNS incidents and risks, views from the shipping industry and a panel discussion by States that have implemented the Convention were all part of a busy.

This event was organised in cooperation with the International Oil Pollution Compensation (IOPC) Funds, with IMO Legal Director, Frederick Kenney, and IOPC Funds Director, José Maura, addressing the opening session – both emphasizing the importance of the HNS Convention as the key missing piece in the puzzle of the international maritime liability and compensation regime.

Work here is representative of IMO's continuing efforts to support its Member countries in introducing and adopting key regulations to help make shipping safer, cleaner and greener.

Progress on safety of domestic ferries: Pacific Islands

Domestic ship services are a major part of the transport system in Pacific Island countries. To address key concerns surrounding the safety of domestic ferries, a three-day event was held in Port Moresby, Papua New Guinea from 23-25 April.

One major outcome of the forum was the adoption of a community-based approach which aims to involve end users of domestic ship services to improve awareness as well as to enhance safety measures.

Under the theme: Supporting Safe Shipping to Protect Safety of Life and Environment, the third domestic ship Safety Forum also looked at the progress made in implementing the 2012 Suva Action Plan, which aims to bring safer ferry operations throughout the region.

IMO's Bekir Sitki Ustaoglu, Head Asia-Pacific of IMO Technical Co-operation Division commented: *'The dependence of Pacific Islanders on inter-island shipping is of paramount importance and every effort must be made by government and industry alike to ensure that only safe ships sail.'*



The Forum emphasised that all stakeholders in the Pacific are committed to working towards ensuring that all vessels operate in a sound and safe condition, posing no danger to the lives of those on board or to the marine environment.

Over 100 participants from Pacific Island countries and territories*, as well as local stakeholders from the industry participated in the forum. They shared experiences and agreed on solutions to deal with emerging and persistent issues in relation to domestic shipping safety in the Pacific and discussed the responsibilities of ship operators and maritime administrations.

This forum was organized by IMO in collaboration with the Pacific Community (SPC) and the National Maritime Safety Authority (NMSA) of Papua New Guinea.

Also addressed was the International Safety Management (ISM) Code, which provides an international standard for the safe management and operation of ships and for pollu-

tion prevention. Furthermore, a workshop was conducted to enhance awareness of the ISM Code in the South Pacific Community. Here was discussed the socio-economic, political, and cultural specifics of the region.

Participants were encouraged put forward their thoughts about issues that specifically impacted upon domestic ferry safety in their respective administrations. The interactive workshop allowed participants to understand the challenges in their own region but also to facilitate learning and sharing experiences from other regions.

*Cook Islands, Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, New Zealand, Palau, Papua New Guinea, Solomon Islands, Tuvalu and Vanuatu.

Philippines accedes to air pollution and energy efficiency rules

The Republic of the Philippines has become the latest country to accede to the IMO instrument providing rules for the prevention of air pollution from ships and energy efficiency requirements. This brings the total number of ratifications of MARPOL Annex VI to 90, representing 96.5% of world merchant shipping tonnage.

MARPOL Annex VI limits the main air pollutants contained in ships' exhaust gas, including sulphur oxides and nitrous oxides, and prohibits deliberate emissions of ozone depleting substances. It also includes energy-efficiency measures aimed at reducing greenhouse gas emissions from ships.



The Philippines also deposited its instruments of accession to the 1988 Protocol to the International Convention on Load Lines (LL), 1966; and the 1978 Protocol to the International Convention for the Safety of Life at Sea (SOLAS), 1974.

HE Gilberto Asuque, Deputy Chief of Mission, Permanent Representative of the Philippines to IMO at the Embassy of the Republic of the Philippines in the United Kingdom, handed over the instruments of accession to Fred Kenney, Director, Legal Affairs and External Relations division, IMO, during the 105th session of the IMO Legal Committee.

As a lead pilot country in the Global Maritime Energy Efficiency Partnerships Project (GloMEEP Project), the Philip-

pinas has received technical cooperation support towards accession and implementation of MARPOL Annex VI. GloMEEP aims to support the uptake and implementation of energy efficiency measures for shipping, thereby reducing greenhouse gas emissions from shipping.

Piracy reporting discussed at roundtable event: Singapore

On 25 April IMO took part in discussions on piracy reporting and response procedures at a Regional Cooperation Agreement on Combating Piracy and Armed Robbery against Ships in Asia Information Sharing Centre (ReCAAP-ISC) event in Singapore. IMO's Chris Trelawny provided a history and overview of the Organization's reporting procedures relating to piracy and armed robbery against ships.



A number of IMO treaties and guidelines help to address the issue of piracy and improve maritime security. These include the International Ship and Port Facility Security Code (ISPS Code) and Djibouti Code of Conduct. IMO Member States are encouraged to report incidents of piracy and armed robbery against ships on the IMO piracy database via the Global Integrated Shipping Information System (GISIS).

To find out more about IMO's maritime security and piracy work readers are invited to see here:

<http://tinyurl.com/yapth5k9>

Seafarer issues to the fore at IMO Legal Committee

The increase in the number of reported cases of abandonment of seafarers was highlighted during the 105th session of IMO's Legal Committee held from 23-25 April. A joint International Labour Organization (ILO)/IMO database recorded 55 such cases during 2017, against an average 19 annually during the preceding three years. Seafarers may be left without proper supply of food and fresh water, without wages and resources for their families and with no prospect of being repatriated.

Amendments to the ILO Maritime Labour Convention (MLC 2006) require ship owners to have compulsory insurance to cover abandonment of seafarers, as well as claims for death or long-term disability of seafarers. These amend-

ments were based on guidelines developed by a joint IMO/ILO working group, which reported to each of IMO's Legal Committee and ILO's governing bodies.



IMO's Legal Committee considered the fair treatment of seafarers in the event of a maritime incident. IMO has issued guidelines on fair treatment, yet, in some cases, seafarers have been detained or imprisoned, facing criminal charges without legal assistance or other support. Other matters on the Legal Committee agenda included the implementation of the treaty covering liability and compensation for hazardous and noxious substances (2010 HNS Convention).

Two new agenda items were proposed for inclusion for debate at future sessions: (i) the problem of fraudulent registration of ships; (ii) a proposal to carry out a gap analysis of existing liability and compensation treaties and (iii) a scoping exercise in relation to maritime autonomous surface ships. The latter would complement work to be carried out by the Maritime Safety Committee (MSC) on autonomous vessels. The Legal Committee was opened by IMO Secretary-General Kitack Lim and was being chaired by Volker Schöfish (Germany).

Better preparation against security threats: Mexico

From 16-20 April Mexico hosted a five-day workshop on IMO's International Ship and Port Facility Security Code



(ISPS Code), which sets out preventive security measures in case of threats to ships and port facilities.

Designated authority and port facility security officers had the chance to improve their knowledge and understanding through practical exercises as well as class-based training in how to implement the relevant provisions of the ISPS Code, SOLAS Chapter XI-2 and related guidance. Participants will now be equipped with the necessary skills to train others with similar responsibilities.

This national workshop, which was conducted at the request of the National Maritime Authority of Mexico (SEMAR), was held in the port city of Lázaro Cárdenas assisted by a team of IMO consultants.

Tackling oil and fuel theft: Switzerland

Oil and fuel theft is a major, global challenge in the maritime industry, with potential widespread repercussions, ranging from ecological damage to depriving governments of customs duties and tax revenues. IMO participated in the inaugural Oil & Fuel Theft conference on 18 / 19 April in Geneva. This conference, organized by Defence IQ in partnership with the cantonal government of Geneva, brought together governments, oil majors, energy industry companies and national security stakeholders to understand and shed light on the scale of the problem and examine ways to combat this issue.



Oil and fuel theft typically takes place in the maritime domain, with oil tankers accounting for a fourth of global trade. Law enforcement over vast maritime spaces is often hindered by scarcity of resources.

Forms of hydrocarbon crime pose a very real threat to regional and global stability, security, and prosperity. Downstream oil theft is not merely an end in itself but is a means to the criminal ends of terrorist groups, organized crime syndicates, and violent insurgents which must be addressed as a global issue.

IMO's Henrik Madsen addressed the conference during a session on *Maritime Piracy: Measures to ensure the security of oil and fuel assets*. Madsen highlighted IMO's maritime security initiatives and its capacity-building work in regions

such as the Gulf of Guinea, where the organization supports the implementation of the Code of Conduct concerning the repression of piracy, armed robbery against ships, and illicit maritime activity in west and central Africa.

Training on ship air pollution and low carbon measures: Iran

Iranian officials responsible for implementing IMO standards on air pollution and greenhouse gas emissions from shipping underwent IMO training at a national workshop in Tehran, Islamic Republic of Iran from 16-18 April.

Around 30 participants from the country's Ports and Maritime Organization (PMO), Department of Environment and numerous ports took part. They were trained on the IMO treaty restricting air pollution from ships as well as ship energy-efficiency measures – MARPOL Annex VI. This includes measures addressing sulphur oxide (SOx) and nitrogen oxide (NOx), which have been successful in lowering the amount of those pollutants being emitted from ships.



This event was hosted by the PMO and run by IMO's Astrid Dispert and a consultant. It was funded and carried out as part of IMO's continuing technical cooperation work – under the Organization's Integrated Technical Cooperation Programme. **(ENDS)**

The Nautical Institute updates its support for CMMar award

It was reported on 5 September that The Nautical Institute had signed an updated administrative agreement in support of the Chartered Master Mariner (CMMar) programme – a new professional maritime standard.

This agreement, signed by the Master of the Honourable Company of Master Mariners, Captain Rob Booth (pictured, right), and the Chief Executive of The Nautical Institute, Captain John Lloyd (left), has been refined to establish clarity of requirement for UK and international applicants

and to ensure administrative support and record keeping continue to be delivered by The Nautical Institute.



The CMMar award serves to recognise mariners who have benefited the maritime industry, enhanced their professional capabilities and demonstrated a willingness to help others.

Before an application for Chartered Master Mariner status will be considered, the applicant must demonstrate that they hold, or have held, the highest level of maritime command qualification that their State is legally able to issue. The programme has been designed in this way so that the path to completion thoroughly tests and proves those who aspire to achieve the award.

How to apply

Readers wishing to apply for Chartered Master Mariner status are invited to see the guidance provided through the Nautical Institute here: <http://tinyurl.com/ybfa5grn>

From the IFSMA Office

We are pleased to report that the office move went well, we are now settled into our new office in Birdcage Walk. The location is in the middle of London, close to Westminster Abbey, Houses of Parliament and Buckingham Palace. As the two of us carried out the move ourselves, using with an estate car, there were minimal costs involved.

We are now busy preparing for the Special Meeting of the General Assembly on the 19th September and the Executive Council meeting at the same time. In addition, after the summer break IMO Meetings are starting again with two important meetings scheduled for this month.

Would you like to see your photograph featured on the front cover? Anything suitable with a nautical flavour would be welcome. If digital it must be at least 300dpi (dots per inch) or a few megabytes in size. Please send them to the office.

Contributions or articles for the next Newsletter are always welcome, as are your comments on any particular article of subject covered in this edition. Send to: hq@ifsma.org