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IF SMA

NEWSLETTER

The Shipmasters' International Voice



Rickmers former sail training vessel in Hamburg



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Editor's Note

In this edition we bring you more news from all quarters.

You will notice we are covering developments of autonomous vessels, a trend that is gathering momentum and one that we are constantly monitoring with the maritime community.

Also here are marine accident reports, they are depressing to read yet their content is so important such that much can be learnt from the recommendations and safety lessons derived by the investigating authority.

It is with pleasure that we publish articles here kindly provided by the Britannia P&I Club and the Shipowners' P&I Club. These valuable contributions are a reflection of the insurance business which has to be aware of the perils and dangers faced by its members. In turn the Clubs perform an education function warning members' fleets of the risks encountered. We are most grateful for this timely delivery.

Secretary General's Report

Since the last newsletter we have had quite a busy time here at IFSMA. The end of April saw us being hosted by Captain Marcos Castro and his team from CUOMM for our very successful 44th AGA in Buenos Aires. Arrangements were first class and we were all looked after in typical traditional Argentinian style. Everyone who attended said how professional it all was and the hospitality was absolutely outstanding. I thank Marcos and his team for hosting the last of this type of AGA.

The year 2019 will see the first of the new Biennial Conferences in odd years and in even years we will hold an Annual General Meeting primarily in London at our Headquarters. The 2019 Conference or Congress, co-hosted by IFSMA and the Company of Master Mariners of India, CMMI, will be held from 25 to 27 September 2019 in New Delhi. The formal announcement and Save the Date will be issued shortly and I very much look forward to seeing you there as and I expect it to be very well attended and hopefully we will be joined by major suppliers of maritime equipment showing us new products and seeking the views of our Shipmasters' vast experience.

IFSMA's reputation on the international stage continues to rise and following a major intervention at the IMO's Maritime Safety Committee in May on Corruption in the Maritime Environment, we were invited to become a member of the Cross-Industry Working Group on Maritime Corruption working under the umbrella of the Maritime Anti-Corruption Network, MACN. This intervention emphasised that it is nearly always the Shipmaster who is the one who has to face this evil practice being on the "front line" and an easy target. You will note that we have placed a link to the MACN Annual Report on the front page of our website and I urge you to read this. In addition, MACN have written a short article for this newsletter and seeks the cooperation of all Shipmasters in helping to highlight incidents of corruption around the world. I urge you to read this, too, and to participate in ridding our industry of this scourge.

You will all have seen the letter sent out to the Membership in May informing you of the Resolutions made at the 44th AGA and the issuing of the "save the date" for a Special Meeting of the General Assembly General that was called for by a quorum of IFSMA Associations. Having sought your views on the Resolutions to be resolved at this meeting, the Secretariat will shortly issue the calling Notice for this Meeting to be held in London on the 19 September 2018. This Meeting will address Resolutions 44/01 – 44/05 which are very much concerned with taking IFSMA forward with renewed vigour to enable us to make an even bigger impact on the international stage and, particularly, at the IMO where our standing has never been so high. I hope you will make the effort to attend or at least send in your Proxy/Postal Votes. I look forward to seeing you there.

Over the last 15 months IFSMA has been working with ICS, INTERTANKO, OCIMF and others on the development of a new publication: Global Counter Piracy Guidance for Companies, Shipmasters and Seafarers. This is a useful publication to inform on the sensible precautions a Shipmaster should take in those areas around the world where piracy is sadly still on the increase and yet there is no specific Counter Piracy Regional Guidance. Where there is Regional Guidance, the details are highlighted in the Annex, but does not supersede them. In addition we are also a cosignatory to the latest version of Best Management Practice on Counter Piracy in the West Indian Ocean and Gulf, BMP 5. Both publications include other threats such as cyber-crime and terrorism. You will find both of these documents published on the front page of our website. At the same time a new industry website, www.maritimeglobalsecurity.org has now been launched. The website is supported by a number of shipping industry associations and is intended to serve as a reliable source for companies and mariners seeking guidance on a wide range of maritime security issues. I urge you to have a look at the new publications to bring yourself up to speed and to look at the new website and I hope you find this helpful.

BRIT NAV SAT?

UK Space Agency leads work on options

An independent satellite system

According to a recent statement the UK Space Agency¹ will lead work to develop options for a British Global Navigation Satellite System. This was confirmed by the Government on 2 May as it develops options for a British Global Navigation Satellite System.



London pictured from the International Space Station.
Photo: ESA/Tim Peake ©

Led by the UK Space Agency, a taskforce of Government specialists and industry will work quickly to develop options that will provide both civilian and encrypted signals and be compatible with the GPS system.

It is reported that the UK is already a world-leader in

developing satellite technology, building 40% of the world's small satellites and one in four commercial telecommunications satellites.

Down the years UK companies have made a critical contribution to the EU Galileo programme, building the payloads for the satellites and developing security systems. This taskforce will draw on this experience and expertise as it develops plans for an innovative system that could deliver on the UK's security needs and provide commercial services.

Business Secretary Greg Clark commented: *'This taskforce will develop options for an independent satellite navigation system using the world-beating expertise of Britain's thriving space sector. We have made our position clear to the European Commission and highlighted the importance of the UK to the Galileo programme. It is now right that we explore alternative options to ensure our security needs are met as we continue to take full advantage of the opportunities that exist in the global space sector, through our modern Industrial Strategy.'*

It is understood that the UK will be able to use Galileo's open signal in the future, and British Armed Forces and emergency services were due to have access to the encrypted system when it is fully operational.

The Government has been clear there is a mutual benefit to the UK remaining involved in Galileo and is working hard to deliver this. Without the assurance that UK industry can collaborate on an equal basis and without continued access to the necessary security-related information, the UK could be obliged to end its participation in the project.

The Business Secretary Greg Clark wrote to the European Commission in April 2018 expressing concern about its intention to exclude the UK from the secure elements of Galileo. The UK Space Agency has been engaging regularly with the UK companies involved and will now lead the work to develop potential alternative options.

On 30 January 2018 Government issued the Blakett review² which estimated that a failure of navigation satellite service could cost the UK economy £1 billion a day. Resilient and secure positioning, navigation and timing information is increasingly essential for defence, critical national infrastructure and emergency response.

The UK Space Agency is driving the growth of the space sector as part of the Government's Industrial Strategy with major initiatives including the National Space Test Facility at Harwell, and the UK continues to be a leading member of the European Space Agency, which is independent of the EU.

New figures released on 2 May by the ADS Group trade body³ show that in 2017 the UK space industry was worth around £15 billion a year in turnover, with exports of £5.4 billion and 71% growth since 2012.

¹ See <http://tinyurl.com/mwakvrc>

² *Satellite-derived Time and Position: a Study of Critical Dependencies* exploring our dependency on global navigation satellite systems (GNSS). See: <http://tinyurl.com/y8f9w6k9>

³ Representing aerospace, defence, security & space sectors, see: <https://www.adsgroup.org.uk>

Piracy attacks worsen



Gulf of Guinea

It was reported by the ICC International Maritime Bureau jointly in London and Kuala Lumpur on 10 April that there had been a surge in armed attacks against ships around West Africa. This is pushing up global levels of piracy and armed robbery at sea.

Overall in the first quarter, 66 incidents were reported to the IMB PRC, up from 43 for the same period in 2017, and 37 in Q1 2016.

Four vessels were hijacked, 39 boarded, 11 fired upon and 12 attempted incidents were reported to the IMB PRC.

It is understood that 100 crew were taken hostage and a further 14 kidnapped from their vessels.

A summary of piracy and armed robbery per region appears here:

Gulf of Guinea:

The Gulf of Guinea accounts for 29 incidents in 2018 Q1. Of the 114 seafarers captured worldwide, all but one was in this region.

All four vessel hijackings were in the Gulf of Guinea. Two product tankers were hijacked from Cotonou anchorage in mid-January and early February. Towards the end of March, two fishing vessels were hijacked 30nm off Nigeria and 27nm off Ghana.

From a seafarer's point this area continues to be one of risk to operate in. In this region, Nigeria alone recorded 22 incidents. Of the 11 vessels fired upon worldwide, eight were off Nigeria – including a 300,000 MT deadweight VLCC tanker more than 40nm off Brass. The IMB is working with national and regional authorities in the Gulf of Guinea to support ships and coordinate counter piracy actions.

Reporting incidents to the IMB Piracy Reporting Centre (PRC) allows the Bureau to relay the incidents to the appropriate authorities and request assistance for the ships. The Benin, Nigeria and Togo authorities have sent out their boats in response to several incidents.

Somalia:

Two incidents were reported off Somalia in the first quarter of 2018. A product tanker was fired upon and chased by two skiffs around 160nm SE of Hobyo. At the end of March, a 160,000 DWT tanker reported being fired upon in the Gulf of Aden, while transiting within the Maritime Security Transit Corridor. The distance from land, sighting of ladders and firing upon ships continues to illustrate that the Somali pirates retain the capability and intent to attack merchant shipping in the wider Indian Ocean.

The IMB continues to urge all ship owners and Masters to implement the recommended reporting and vessel hardening guidelines in the BMP4.*

Venezuela:

A spike in incidents has been reported in these waters. Seafarers are encouraged to report all incidents as this will allow the IMB PRC to alert the Coastal Authorities as well as alert shipping in the Region via the Inmarsat Safety Net Service.



IMB Piracy Reporting Centre (IMB PRC):

Set up in 1991, the IMB's 24hour manned Piracy Reporting Centre continues to remain the only non-political and not for profit organisation sharing transparent, timely and relevant information on global piracy and armed robbery.

Seafarer safety is of paramount importance to the IMB PRC. Incidents reported to the IMB PRC are relayed to the appropriate authorities as well as broadcast to ships in the areas of concern and risk.

Piracy alerts are sent out to Company Security Officers

(CSO) and others within shipping companies who have direct responsibility for safety and security of their vessels. If anyone in an organisation would like to be added they are invited to e-mail Cyrus Mody <cmody@icc-ccs.org> ** There is no charge for this service.

To request a copy of Q1 2018 IMB Piracy Reporting Centre (IMB PRC) piracy and armed robbery report readers are invited to see here:

<http://tinyurl.com/yau9rk3c>

* BMP4 See: <http://tinyurl.com/jdbydoa>

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Enhancement of safe autonomous navigation at sea using deep learning techniques

ASV Global and BMT awarded funding

It was announced from Portsmouth on 10 April that ASV Global is leading a new £1.2million research project in partnership with BMT to enhance the safety and reliability of autonomous navigation.

It is understood that this project team will use deep learning machine vision systems trained with a unique combination of simulated and real world data.



Part funded by Innovate UK, the UK's innovation agency, this project will enhance situational awareness enabling the Unmanned Surface Vehicle (USV) to operate in extreme and congested marine environments.

Known as the Synthetic Imagery training for Machine Vision in Extreme Environments (SIMVEE) the project will build upon ASV's existing, COLREG cognisant, autonomous collision avoidance and path planning capability. The project will use BMT's REMBRANDT simulator to train and validate ASV Global's vision algorithms to detect and classify objects at sea.

A key project output will be improved situational awareness for both the autonomy onboard and the remote human supervisor (*illustrated*). Unique combination of real world and simulated data to train deep learning algorithms will improve the reliability of the existing system extending safe operations into complex environments with a wide range of objects to detect, classify and avoid, it has been reported.

Richard Daltry, R&D Director at ASV Global commented: *'This work will provide a significant step in the capability of ASV Global's ASView autonomous control and navigation system. Today we use a remote human supervisor and AIS to classify objects and ensure safe operations. The addition of machine vision that detects and classifies objects extends our COLREG compliant autonomous navigation, enabling operations in limited bandwidth with reduced supervisor workload.'*

In addition Phil Thompson, Managing Director at BMT stated: *'We're delighted to be partnering with ASV on this project. This research will play a pivotal role in helping to accelerate the wider adoption of unmanned systems and increase trust in their feasibility by mariners around the world.'*

Using data gathered by BMT's REMBRANDT ship manoeuvring simulator as well as real world onboard camera data will allow the team to train the autonomy system with large quantities of data. This method provides a cost-effective solution to generating the data and accelerates the machine-learning process. The project will not only allow ASVs to operate in the same way as traditional manned vessels at sea but will also open up new use cases and applications with the added use of BMT's Search and Rescue Information System (SARIS).

About ASV Global

ASV Global is the world leading developer of autonomous vessel technology. The company has delivered more than 90 systems which are now deployed worldwide in the service of the defence, oil & gas and scientific sectors.

About BMT

BMT is an international design, engineering and risk management consultancy, working principally in the defence and security, energy and environment, marine risk and insurance, maritime transport and ports and logistics sectors.

Saga Sky and *Stema Barge II*

At approximately 0850 on 20 November 2016, the general cargo ship *Saga Sky* collided with the rock-carrying barge *Stema Barge II* about two miles off the south coast of the UK.

Both vessels were being driven towards the coast under the influence of adverse weather created by Storm Angus, during which time two subsea power cables were severed.

Stema Barge II was being used to supply rock armour to a sea defence project

commissioned by Network Rail. The barge had been anchored close to the subsea cable runs of Interconnector France-Angleterre 1, a high voltage power supply system operating between the UK and France.

After *Saga Sky* had passed through Dover Strait in the south-west traffic lane, the weather deteriorated significantly with the approach of Storm Angus. The south-westerly wind and tidal stream significantly reduced the ship's progress. The master attempted to turn the ship to starboard to steer a reciprocal course and run with the weather until the storm abated.

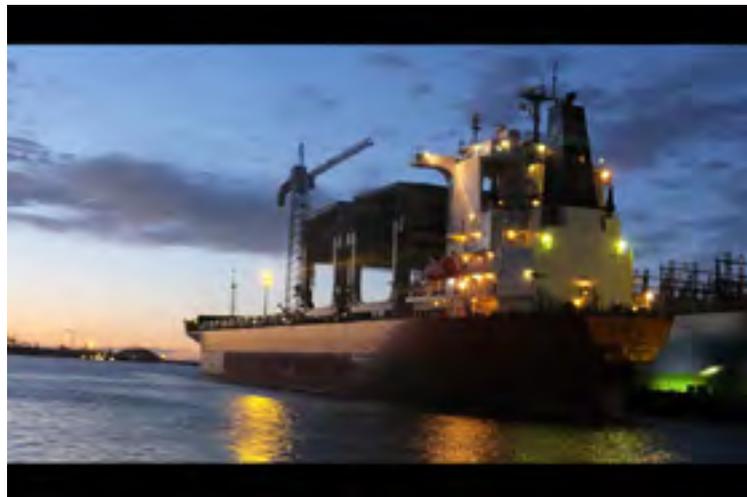
The effect of the wind acting on the ship's cranes and aft superstructure overcame

the turning moment of the rudder and prevented the turn from being completed. Despite maintaining propulsion, *Saga Sky* was blown broadside over a distance of approximately 7.4nm while the master continued with his attempts to turn the vessel to starboard until it collided with *Stema Barge II*.

The combination of wind and tide propelled *Saga Sky* beam on to the wind, at speeds of up to 9kts, and even after deploying both anchors the ship continued to move under the effects of the storm.

Both vessels dragged their anchors and two of the four subsea cable pairs that made up the interconnector were severed.

The investigation examined the reason for *Saga Sky* continuing to proceed in adverse forecast weather and the rationale for the master's attempted turning manoeuvre. It found deficiencies with the ship's weather forecast reception facilities, deficiencies in the sea defence project planning process, and potential shortfalls in the provision of emergency response assets.



Background

Saga Sky was a 29,381gt general cargo ship, which carried forest products from

South America to Northern Europe. It had sailed in ballast from Brake, Germany and was bound for Uruguay.

Stema Barge II was an unpropelled barge capable of carrying 25,000 tonnes of rock and was moored offshore between Folkestone and Dover as part of a sea defence project commissioned by Network Rail. The barge had been at anchor since 7 November and its cargo had been partially discharged to the sea defence work at Shakespeare Beach.

Interconnector France-Angleterre (IFA) 1 is a 2,000MW high voltage direct current electrical interconnector between the UK and French transmission systems.

Commissioned in 1986, it is approximately 70km in length, with 45km of subsea

cable. The cables come ashore near Folkestone in the UK and near Calais in France.

Storm Angus was an extra-tropical cyclone, which had developed in the Atlantic Ocean. It was forecast to arrive on the south coast of England on 20 November,

then to move quickly across southern England into the North Sea, bringing a period of gales or severe gales to many southern areas.

The accident report was issued by the Marine Accident Investigation Branch on 15 March 2018.

Safety lessons

Despite several prompts from the UK Coastguard, *Saga Sky*'s anchors were not deployed until the point at which a collision may have been prevented had passed

An out of date Admiralty chart had been used to determine the anchor position for *Stema Barge II*, this position was directly above one of the subsea cables of Interconnector France-Angleterre 1. That this passed through the com-

plete planning process for the sea defence work questions the level of focus on navigational safety

Given the volume of traffic using the Dover Strait and the absence of local commercial salvage assets, a review of emergency towage provision would be appropriate

Recommendations

The Maritime and Coastguard Agency have been recommended (2018/104) to commission a study to review the full range of emergency response assets available in the Dover Strait area, including a reassessment of the need for a dedicated emergency towing capability.

Furthermore, in conjunction with the United Kingdom Hydrographic Office, the Maritime and Coastguard Agency have been recommended (2018/107) to justify the need for regulatory powers which could be applied, where appropriate to ensure vessels comply with the International Hydrographic Organization recommendations with respect to anchoring in the vicinity of submarine cables.

The Marine Management Organisation have been recommended (2018/105) to improve their marine licence application process by:

- Highlighting precisely what activities the particular marine licence is to cover, including any specified risks to be assessed in the submission.
- Clearly stipulating a requirement that the latest nautical publications are referred to in the submission.
- Ensuring that its primary advisors are clear on the objectives of their respective reviews and the elements of the application they are required to assess.

The United Kingdom Hydrographic Office have been recommended (2018/106) to adopt the International Hydrographic Organization's recommendation for responsible authorities to set a minimum distance, nominally 0.25nm, from submarine cable, within which ships should avoid anchoring or conducting other underwater activities.

Anglo-Eastern Ship Management Ltd have been recommended (2018/108) to enhance their shipboard procedures by developing vessel-specific guidance that its masters can refer to in order to estimate the effect forecast heavy weather conditions could have on their ships' manoeuvrability.

Recommendations have been made to: the Marine Management Organisation, to improve its marine licence application process; the United Kingdom Hydrographic Office (UKHO), to promote the International Hydrographic Organization's (IHO) recommendation for implementing anchoring restrictions near subsea cables; the Maritime and Coastguard Agency, to commission a study to review the full range of emergency response assets available in the Dover Strait area and in conjunction with the UKHO to justify the need for regulatory powers which could be

applied, where appropriate, to ensure vessels comply with IHO recommendations made in respect of anchoring restrictions near subsea cables.

A recommendation has also been made to *Saga Sky's* manager, to enhance its shipboard procedures in respect of heavy weather operational guidance.

To see the full MAIB report and Annexe readers are invited to visit: <http://tinyurl.com/yare4lnx>

Marine Environment Protection Committee (MEPC), 72nd session,

9-13 April 2018

IMO's key environmental meeting, the Marine Environment Protection Committee (MEPC), adopted an initial GHG strategy for shipping, adopted amendments to the Ballast Water Management Convention; approved an amendment related to implementation of the sulphur 2020 fuel oil limit; agreed to develop a ban on heavy fuel oil the Arctic following an impact assessment; and agreed to address the issue of marine plastic litter from shipping.

Greenhouse gas emissions (GHG) initial strategy adopted

The MEPC adopted an initial strategy on the reduction of GHG emissions from ships, setting out a vision to reduce GHG emissions from international shipping.

The vision confirms IMO's commitment to reducing GHG emissions from international shipping and, as a matter of urgency, aims to phase them out as soon as possible in this century.

More specifically, under the identified "levels of ambition", the initial strategy envisages for the first time a reduction in total GHG emissions from international shipping which, it says, should peak as soon as possible and to reduce the total annual GHG emissions by at least 50% by 2050 compared to 2008, while, at the same time, pursuing efforts towards phasing them out entirely.

The strategy includes a specific reference to "a pathway of CO₂ emissions reduction consistent with the Paris Agreement temperature goals".



Further work on energy efficiency requirements

The MEPC adopted amendments to regulation 21 of MARPOL Annex VI regarding Energy Efficiency Design Index

(EEDI) requirements for ro-ro cargo and ro-ro passenger ships.

Energy-efficiency design standards for new ships and associated operational energy-efficiency measures for existing ships became mandatory in 2013, with the entry into force of relevant amendments to MARPOL Annex VI.

The Committee was informed that more than 2,700 new ocean-going ships have been certified as complying with the energy efficiency standards.

The MEPC received a report on progress by the correspondence group on review of the Energy Efficiency Design Index (EEDI) beyond Phase 2 and re-established the group to continue its work. The correspondence group is expected to make an interim report to MEPC 73 (October 2018) with a final report to MEPC 74 (Spring 2019). That report is expected to provide a recommendation on the time period and reduction rates for EEDI Phase 3 requirements and the outcome of discussions within the correspondence group on a possible introduction of Phase 4 requirements, with associated time period and reduction rates.

Draft amendments to regulation VI/19.3 proposed in relation to exemptions on EEDI for ice class ships were referred to the correspondence group.

Mandatory data collection system for fuel oil consumption of ships

MARPOL amendments to make mandatory the data collection system for fuel oil consumption of ships entered into force on 1 March 2018. They require data collection to commence from 1 January 2019.

MEPC 72 was updated on the status of the development of the IMO Ship Fuel Oil Consumption Database which was launched in March 2018.

Relevant matters concerning implementation of the requirement were considered.

The MEPC approved the Sample format for the Confirmation of compliance, early submission of the Ship Energy Efficiency Management Plan (SEEMP) Part II on the ship fuel oil consumption data collection plan and its timely verification pursuant to regulation 5.4.5 of MARPOL Annex VI. The confirmation of compliance should confirm that the methodology and processes are in place for the ship to report the data required under the regulations.

Implementation of sulphur 2020 limit - non-compliant fuel oil ban approved

The 0.50% limit on sulphur in fuel oil on board ships (outside designated emission control areas or ECAs, where the limit is 0.10%) will come into effect on 1 January 2020.

The MEPC approved, with a view to adoption at MEPC 73 (22-26 October 2018), draft amendments to MARPOL An-

nex VI to prohibit the carriage of non-compliant fuel oil for combustion purposes for propulsion or operation on board a ship.

The exception would be for ships fitted with an approved "equivalent arrangement" to meet the sulphur limit – such as an exhaust gas cleaning system (EGCS) or so-called "scrubber" – which are already permitted under regulation 4.1 of MARPOL Annex VI. These arrangements can be used with "heavy" high sulphur fuel oil as EGCS clean the emissions and therefore can be accepted as being at least as effective at meeting the required sulphur limit. Additionally, ships undertaking research trials of emission reduction and control technology can be exempted under regulation 3.2 of MARPOL Annex VI.

For a ship without an approved equivalent arrangement, the effect of the draft amendment, which would enter into force on 1 March 2020, would be that the sulphur content of any fuel oil used or carried for use on board shall not exceed 0.50%.

IMO's Sub-Committee on Pollution Prevention and Response (PPR) is currently developing guidelines to support the implementation of the 2020 sulphur limit. An intersessional working group will meet 9 to 13 July 2018, in order to ensure appropriate guidelines can be considered and issued in good time.

These guidelines will cover a range of issues related to implementation, including ship planning for implementation; verification and control issues; and fuel oil non-availability reporting.

Consistent implementation of the 0.50% sulphur limit for all ships will ensure a level playing field is maintained, with the result that the expected improvement of the environment and human health will be achieved. Sulphur oxides (SOx) are known to be harmful to human health, causing respiratory symptoms and lung disease. In the atmosphere, SOx can lead to acid rain, which can harm crops, forests and aquatic species, and contributes to the acidity of the oceans.

Fuel oil quality – best practice guidance approved

The MEPC approved Guidance on best practice for fuel oil purchasers/users for assuring the quality of fuel oil used on board ships.

The best practices are intended to assist in assuring the quality of fuel oil delivered to, and used onboard ships, with respect to both compliance with the MARPOL requirements and the safe and efficient operation of the ship.

Draft best practice guidance for fuel oil suppliers and best practice for Member States/coastal States is also being developed.

Implementation of the Ballast Water Management Convention – amendments adopted

The International Convention for the Control and Management of Ships' Ballast Water and Sediments, 2004 (BWM Convention), entered into force in September 2017 and has, to date, been ratified by 69 countries, representing 75.11% of world merchant shipping tonnage.



Amendments to the BWM Convention adopted

MEPC 72 adopted amendments to the BWM Convention, which were approved at the last session. The amendments will enter into force on 13 October 2019.

The amendments relate to the implementation of the treaty, including the schedule for ships to comply with the requirement to meet the so-called D-2 standard (amendments to section B). In accordance with resolution MEPC. 287(71), Parties to the BWM Convention have already implemented the schedule for compliance outlined in the amendments since the entry into force of the BWM Convention.

Other amendments (to Sections A and D) make mandatory the Code for approval of ballast water management systems, which was also adopted at the session. Further amendments relate to Section E on survey and certification.

Since the date of entry into force, ships have been required to manage their ballast water to avoid the transfer of potentially invasive aquatic species. All ships must have a ballast water management plan and keep a ballast water record book. Ships are required to manage their ballast water to meet either the D-1 ballast water exchange standard or the D-2 performance standard, which specifies maximum limits for the discharge of viable organisms as well as specified indicator microbes harmful to human health.

Experience-building phase

With the BWM Convention's entry into force, and the adoption of a first set of amendments, there is now increased emphasis on its effective implementation and enforcement.

The experience-building phase (EBP), established

through resolution MEPC.290(71), will enable port States, flag States and other stakeholders to gather, prepare and submit data, the analysis of which will allow a systematic and evidence-based review of the requirements of the Convention and the development of a package of amendments to the Convention as appropriate.

MEPC 72 approved the Data gathering and analysis plan for the experience-building phase associated with the BWM Convention (BWM.2/Circ.67), which sets out the specific arrangements for data gathering during the EBP (including the interfaces through which data may be submitted to the EBP and the specific data requirements for each interface), as well as principles and organizational arrangements for analysing the data collected, and the timeline for the EBP.

Guidance for uniform implementation of the BWM Convention

The MEPC approved the following circulars: *Unified Interpretation of Appendix I (Form of the International Ballast Water Management Certificate) of the BWM Convention (BWM.2/Circ.66)*; revised *Guidance on scaling of ballast water management systems (BWM.2/Circ.33/Rev.1)*; and revised *Guidance for Administrations on the type approval process for ballast water management systems (BWM.2/Circ.43/Rev.1)*.

Heavy fuel oil in the Arctic

The MEPC considered the development of measures to reduce risks of use and carriage of heavy fuel oil (HFO) as fuel by ships in Arctic waters and agreed the scope of work for the Sub-committee on Pollution Prevention and Response (PPR), which meets for 6th session PPR 6 in February 2019.

PPR 6 should develop a definition of HFO; prepare a set of guidelines on mitigation measures to reduce risks of use and carriage of heavy fuel oil as fuel by ships in Arctic waters; and on the basis of an assessment of the impacts, develop a ban on HFO for use and carriage as fuel by ships in Arctic waters, on an appropriate timescale.

The Committee requested countries to submit proposals on an appropriate impact assessment methodology process for consideration at MEPC 73 in October, with a view to facilitating the work to be undertaken by PPR Sub-Committee.

Currently, the use and carriage of heavy fuel oil is banned in the Antarctic under MARPOL Annex I regulation 43. It is recommended in the Polar Code that the same rules are applied in the Arctic.

Marine litter

The MEPC agreed to include a new output on its agenda, to address the issue of marine plastic litter from shipping in the context of 2030 Sustainable Development Goal 14 (SDG 14).

Member Governments and international organizations were invited to submit concrete proposals to MEPC 73 on the development of an action plan.

The Food and Agriculture Organization (FAO) and other international organizations to keep the Committee updated on their work related to addressing marine plastic litter. The MEPC also heard from FAO about the FAO Voluntary Guidelines on the Marking of Fishing Gear, which will be submitted to the 33rd session of FAO's Committee on Fisheries (COFI) 9-13 July 2018.

Review of biofouling guidelines

The Committee agreed to include a new output on review of the 2011 Biofouling Guidelines (Resolution MEPC.207(62)) in the post-biennial agenda of the PPR Sub Committee with two sessions needed to complete the work.

IMO is in the preparation phase for the GloFouling Partnerships project – a collaboration between the Global Environment Facility (GEF), the United Nations Development Programme (UNDP) and IMO. The project will address the transfer of aquatic species through biofouling, in other words, the build-up of aquatic organisms on a ship's underwater hull and structures. The project will focus on the implementation of the Biofouling Guidelines, which provide guidance on how biofouling should be controlled and managed to reduce the transfer of invasive aquatic species.

Hazardous and Noxious Cargoes Compensation

Ratifications from Canada and Turkey bring key compensation treaty covering the transport of hazardous and noxious substances (HNS) by ship closer to entry into force. This was confirmed by IMO in a communiqué issued on 23 April.

Two ratifications to a key compensation treaty covering the transport of hazardous and noxious substances (HNS) by ship have brought the instrument a step closer to entry into force.

On 23 April Canada and Turkey deposited their instruments of ratification to the 2010 Protocol to the International Convention on Liability and Compensation for Damage in Connection with the Carriage of Hazardous and Noxious Substances by Sea, 1996 (2010 HNS Convention).

It is understood that when in force, the treaty will provide a regime of liability and compensation for damage caused by HNS cargoes transported by sea, including oil and chemicals, and covers not only pollution damage, but also the risks of fire and explosion, including loss of life or personal injury as well as loss of or damage to property. The HNS Convention establishes the principle that the polluter pays by ensuring that the shipping and HNS industries provide compensation for those who have suffered loss or

damage resulting from an HNS incident. An HNS Fund will be established, to pay compensation once shipowner's liability is exhausted. This Fund will be financed through contributions paid post incident by receivers of HNS cargoes. Both Canada and Turkey provided, as required by the treaty, data on the total quantities of liable contributing cargo. Turkey reported more than 25.4 million tonnes of cargo received.



Upper picture

On 23 April Ms. Sarah Fountain Smith, Deputy High Commissioner, High commission of Canada in the United Kingdom, deposited Canada's instrument of ratification with IMO Secretary-General Lim.

Lower picture

HE Abdurrahman Bilgiç, Ambassador Extraordinary and Plenipotentiary, Permanent Representative of the Republic of Turkey to IMO, handed over Turkey's instrument of ratification during IMO's Legal Committee, which met on 23 to 25 April.

Entry into force of the treaty requires accession by at least twelve States, meeting certain criteria in relation to tonnage and reporting annually the quantity of HNS cargo received in a State. The treaty requires a total quantity of at least 40 million tonnes of cargo contributing to the general account to have been received in the preceding calendar year.

This treaty has now been ratified by three States: Canada, Norway and Turkey. The total quantity of contributing cargo has reached 28.7 million tonnes, or nearly 72% of that required for entry into force.

IMO Secretary General Kitack Lim welcomed the notable progress towards entry into force of the HNS Convention, seen as the last piece needed to complete IMO's comprehensive liability and compensation regime.

He commented: *'I thank Canada, Norway and Turkey for their commitment and strongly encourage other Member States to ratify the 2010 HNS Protocol. The IMO Secretariat stands ready to assist States considering ratifying the Convention.'*

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Support for ratification of HNS Convention

IMO hosted a two-day workshop (26-27 April) for States planning to ratify the HNS treaty. The workshop, organized in cooperation with the International Oil Pollution Compensation Funds (IOPC Funds), focused on practical issues raised by States implementing the 2010 HNS Convention, which are mainly linked to the reporting of contributing cargo that need to be in place prior to a State being able to ratify or accede to the Convention. There will also be discussions on HNS incidents and risks.

HNS Convention

IMO measures relating to the prevention of accidents that involve HNS cargoes are already in force, including ship design, operations and safety on board as well as safety of loading and unloading operations. There is also a Protocol covering preparedness and response to shipping accidents involving hazardous substances.

The 2010 HNS Convention aims to deliver the uniform and comprehensive regime needed to provide compensation for costs, including clean-up and restoring the environment, in the event of an incident involving HNS cargoes.

The treaty complements existing regimes already in force for the transport of oil as cargo, bunker oil used for the operation and propulsion of ships, the removal of hazardous wrecks and claims for death of or personal injury to passengers, or for damage to their luggage, on ships.

Total compensation available under the HNS Convention is capped at 250 million Special Drawing Rights (SDR) of the International Monetary Fund (approximately US\$360

million at current exchange rates) per event. Shipowners are held strictly liable up to a maximum limit of liability established by the Convention for the cost of an HNS incident. Registered owners of ships carrying HNS cargoes have to maintain insurance that is State certified. The HNS Fund pays compensation once shipowner's liability is exhausted and is financed through contributions paid post incident by receivers of HNS cargoes.

The HNS Fund is administered by States and contributions will be based on the actual need for compensation.

HNS covered by the Convention include: oils; other liquid substances defined as noxious or dangerous; liquefied gases; liquid substances with a flashpoint not exceeding 60°C; dangerous, hazardous and harmful materials and substances carried in packaged form or in containers; and solid bulk materials defined as possessing chemical hazards.

The IMO HNS 2010 brochure is available here:

<http://tinyurl.com/y988mlal>

Taking safety to the next step

By The Loss Prevention Team, Britannia P&I Club, reproduced with kind permission.

When the ISM code became mandatory, it introduced a new era in ship operations; safety became systemised and terms like LTI (Lost Time Injury), RCA (Root Cause Analysis) and KPI (Key Performance Indicators) became part of everyday operations, both on board and ashore.

A Master now has to regularly report about the ship's safety performance to the newly established role of the Designated Person Ashore (DPA), and the DPA determines the overall safety level by calculating whether the ship complies with the safety KPIs. Safety is now defined as: the fewer the number of accidents the higher safety standard on the ship.

However, as ship operations have become more complex is this approach still adequate?

Defining safety based on an absence of accidents and incidents has been common for most industries since the concept was introduced in the 1960s. This theory, known as Safety-I¹, is based on a reactive approach, where accidents are investigated in order to identify a root cause and other contributory factors and faults, which can then be eliminated or mitigated in the hope of preventing similar accidents. A safety system is regarded as functioning correctly when no accidents occur over a certain period of time, and malfunctioning when an accident does occur.

Safety-I was developed at a time where ships were less advanced, there were fewer and simpler support systems for the master, and performance requirements were less demanding. At that time safety systems were seen as be-

¹ Erik Hollnagel - Safety I and Safety II, ISBN 9781472423085

ing either functional or non-functional. However as ships have become more advanced and operations more complex it has become increasingly important to understand why some operations and actions result in an accident, but similar operations are completed without any problems.



Thework design consultants ©

This resulted in the development of the Safety II² theory. While more commonly used in aviation than shipping it has been adapted to some extent by the oil and gas and the cruise industries. Where Safety-I looks at why things go wrong Safety-II looks at why things go right.

Safety-I often considers the crew to be a liability and a reason why errors (accidents) can occur. Safety-II sees the crew as a resource necessary to achieve flexibility, with the ability to adapt to different situations – also referred to as resilience or variability. Under Safety-II, the purpose of an accident investigation, besides identifying the root cause, would be to try and understand how and why actions and processes work correctly in order to understand and explain why they occasionally go wrong.

A simplified example, which highlights the differences between Safety-I and Safety-II, is that of a ship that sustains heavy weather damage. A Safety-I investigation identifies the root cause as the Master's failure to reduce speed when passing through the heavy weather, resulting in ship being damaged. Under Safety-II, rather than looking at the isolated incident, similar cases are analysed where other ships experience equally heavy weather but do not sustain any damage. These ships do not reduce speed but use the available weather information service in a different more proactive way, re-routing in order to avoid the worst of the weather conditions and preventing damage to the ship. This preventive measure could easily have been overlooked if the focus was just on the isolated damage incident.

Another example includes navigational audits, which a number of companies have introduced. These are often focused on the watch keeping officer's ability to comply with company navigation procedures, however under Safety-II additional time would be allocated to additionally assess the officer, using the principles of behaviour based safety. Similarly, for near miss reporting, company procedures

could include the option to also report on good practices.

It is important to emphasise that Safety-I and Safety-II represent two complementary views of safety and are not incompatible. Many everyday tasks are often a combination between the two approaches. Applying Safety-II is not meant to be more time consuming and, when implemented fully, should give the master and crew more freedom to act in accordance with their training, based on the human ability to adapt to different situations, and not constrained by too many procedures. Safety-I is also still to some extent necessary for compliance, as a low frequencies of accidents may still indicate a high safety standard - or maybe not?



Britannia Steamship Insurance Association Ltd ©

By understanding why things go right companies can achieve the proactive approach needed to raise ship safety to a new standard.

About Britannia

Established in 1855, Britannia was the first P&I Club in the market and remains a leader in the International Group of P&I Clubs. It has held its prominent position by focusing on providing an exceptional standard of service for the benefit of its members based on the essential values and principals of mutuality combined with commercial strength.

More information about the Britannia P&I Club can be found at: www.britanniapandi.com

² Erik Hollnagel - Safety I and Safety II, ISBN 9781472423085

Australia to pilot ship garbage recycling programme

Port of Hay Point, Queensland

A pilot programme has started at the Port of Hay Point, Queensland to investigate the feasibility of recycling garbage from international ships.

This pilot is being conducted by the Australian Maritime Safety Authority (AMSA), in partnership with the Department of Agriculture and Water Resources (Agriculture), North Queensland Bulk Ports Corporation (NQBP) and Mackay Regional Council.

AMSA's Manager of Environmental Standards Matt John-

ston says that it is important to provide options for ships to dispose of recyclables and garbage in Australian ports while continuing to ensure Australian industries, native wildlife, human health and the environment are protected.

He commented: *'We want to make it easier for international ships to dispose of their garbage and recyclables in the right way, while ensuring biosecurity risks are managed, to help prevent illegal discharges of garbage into the sea, which presents a potential uncontrolled biosecurity risk, and reduce the amount of recyclables that end up in Australian landfill.'*



Current recycling

Ships' crews currently separate recyclable garbage on board, but have limited opportunity to offload these materials at Australian ports for recycling. At the moment, any garbage that is separated on board is combined when offloaded in Australian ports and has to undergo treatment by autoclave or deep-burial to meet Australia's biosecurity requirements. While these treatments address any biosecurity risk, the opportunity for recycling is lost and creates a disincentive for ships to discharge garbage in Australian ports.

Ships can participate in the pilot programme as part of their routine operations on arrival at port. The recyclables that will be accepted during the pilot are glass, aluminium and steel cans and hard plastic containers. These materials will be inspected by Agriculture's biosecurity officers on board the ship and be released from biosecurity control provided they are free from biosecurity risks, such as animal or plant material.

Assistant Secretary of Compliance Controls at the Department of Agriculture and Water Resources, Dean Merrilees, said the programme was a great joint initiative that would ensure biosecurity risks associated with international ships continue to be managed, while also improving recycling arrangements. In his words: *'Garbage brought to Australia on ships could be carrying a range of exotic pests and diseases that can impact on our industries, environment, plant, animal and human health, so it is important these risks continue to be managed.'*

'Through this pilot programme, recyclables that arrive on international ships will still need to undergo usual biosecurity clearance, but they will be able to be disposed of and

recycled in the same way as any domestic or municipal recyclables. This is a fantastic initiative that the department is proud to be part of, as it will allow us to divert more waste away from landfill, while still ensuring Australia maintains its enviable biosecurity status.'

Two initial pilot sites

The Port of Hay Point has been selected as one of two initial pilot sites for the programme to operate through to the end of May, 2018. The other site is the Port of Brisbane.

NQBP Acting CEO Rochelle Macdonald said the AMSA trial aligned with NQBP's commitment to both sustainability and improving operational efficiencies: *'The Hay Point recycling pilot is a strong addition to NQBP's ambition for leadership in sustainable practices. It provides strict biosecurity protection while improving environmental outcomes and efficiency in waste management. Waste reduction, reuse and recovery is a key goal of NQBP's Sustainability Plan 2015+. By working with AMSA and Mackay Regional Council for this trial, NQBP is playing a leading role in improving waste management practices at the port.'*

Mayor of Mackay Regional Council Greg Williamson said his Council is excited to be part of this trial to help reduce waste ending up in our landfill or in our ocean: *'The recyclable material will be processed at our Materials Recovery Facility. We will be monitoring the material that comes in to see if it is viable and sustainable for the long-term.'*



According to a media release from AMSA it is hoped that, through this pilot programme, lessons will be learned on what opportunities and obstacles exist for recycling of ships' garbage in all Australian ports.

Ships that would like to participate in the pilot will have the opportunity to indicate their interest prior to arrival at port.

Picture captions

An example of acceptable waste for recycling from the bulk carrier Corona Ace.

First waste release from the bulk carrier Corona Ace at the port of Hay.

Illustrations kindly provided by AMSA www.amsa.gov.au

IMO and Maritime Autonomous Surface Ships (MASS) operations

MSC 99 16-25 May 2018

At the end of May IMO announced that it had commenced work to look into how safe, secure and environmentally sound Maritime Autonomous Surface Ships (MASS) operations may be addressed in IMO instruments.

In week ending 26 May the organization's senior technical body, the Maritime Safety Committee (MSC), endorsed a framework for a regulatory scoping exercise, as work in progress, including preliminary definitions of MASS and degrees of autonomy, as well as a methodology for conducting the exercise and a plan of work.

For the purpose of the regulatory scoping exercise, Maritime Autonomous Surface Ship (MASS) is defined as a ship which, to a varying degree, can operate independently of human interaction.

To facilitate the progress of the regulatory scoping exercise, the degrees of autonomy are organized (non-hierarchically) as follows (it was noted that MASS could be operating at one or more degrees of autonomy for the duration of a single voyage):

- Ship with automated processes and decision support: Seafarers are on board to operate and control ship-board systems and functions. Some operations may be automated.
- Remotely controlled ship with seafarers on board: The ship is controlled and operated from another location, but seafarers are on board.
- Remotely controlled ship without seafarers on board: The ship is controlled and operated from another location. There are no seafarers on board.
- Fully autonomous ship: The operating system of the ship is able to make decisions and determine actions by itself.

As a first step, the scoping exercise will identify current provisions in an agreed list of IMO instruments and assess how they may or may not be applicable to ships with varying degrees of autonomy and/or whether they may preclude MASS operations.

As a second step, an analysis will be conducted to determine the most appropriate way of addressing MASS operations, taking into account, inter alia, the human element, technology and operational factors.

The MSC, which was meeting for its 99th session from 16-25 May, established a correspondence group on MASS to test the framework of the regulatory scoping exercise agreed at the session and, in particular, the methodology, and report back to its next session, MSC 100 (3-7 December 2018).

The Correspondence Group will test the methodology by conducting an initial assessment of SOLAS regulation III/17-1 (Recovery of persons from the water), which requires all ships to have ship-specific plans and procedures for recovery of persons from the water; SOLAS regulation V/19.2 (Carriage requirements for carriage of shipborne navigational equipment and systems); and Load Lines regulation 10 (Information to be supplied to the master).

If time allows, it will also consider SOLAS regulations II-1/3-4 (Emergency towing arrangements and procedures) and V/22 (Navigation bridge visibility).

The Committee further invited interested Member States and international organizations to submit proposals related to the development of interim guidelines for MASS trials to its next session, MSC 100.



Treaties under consideration

The list of instruments to be covered in the MSC's scoping exercise for MASS includes those covering safety (SOLAS); collision regulations (COLREG); loading and stability (Load Lines); training of seafarers and fishers (STCW, STCW-F); search and rescue (SAR); tonnage measurement (Tonnage Convention); and special trade passenger ship instruments (SPACE STP, STP).

IMO in 2017 adopted Strategic Directions for the Organization, including one on the integration of new and advancing technologies in the regulatory framework - balancing the benefits derived from new and advancing technologies against safety and security concerns, the impact on the environment and on international trade facilitation, the potential costs to the industry, and their impact on personnel, both on board and ashore.

Speaking at the opening of the MSC meeting, IMO Secretary-General Kitack Lim highlighted the importance of remaining flexible to accommodate new technologies, and so improve the efficiency of shipping. He reflected: *'...while at the same time keeping in mind the role of the human element and the need to maintain safe navigation, further reducing the number of marine casualties and incidents'*.

Autonomous ships and the City (of London)

The Shipowners' Club held a one day seminar (5 June) on the topic of Autonomous Ships & the City.

This full day event, which was held in conjunction with Maritime London, aimed to identify and examine the increasing autonomy of vessels.

Topics covered included:

- Timescale: When will autonomous vessels be mainstream?
- Regulatory and Legal: Changes required?
- Risk: A new set of risks.
- Insurance challenges: A new Autonomous vessel policy from Shipowners' Club.

Britt Pickering, Claims & Legal Director at the Shipowners' Club commented: *'Our Autonomous Ships & the City seminar was a great success. Attendance was high and attracted members of the insurance sector (both P&I and H&M) as well as brokers, lawyers, academia, naval architects, ports, operators, manufacturers and Government.'*

'All in attendance shared a common interest in autonomy and were keen to embrace this new sector to ensure it thrives in the UK. The challenge now is to harness the enthusiasm in the room and use it to rise to the challenge this new sector presents and seize the opportunities that come with it.'

A recording of the morning and afternoon sessions is now available to view via the link here:

<http://tinyurl.com/yahcy7qa>

Readers will find the key note speech by Roger Adamson, of FutureNautics and the day's Morning session and Afternoon session.

Unmanned and autonomous vessels – the legal implications from a P&I perspective

(A document issued in December 2017 by the Shipowners' P&I Club reproduction of which in The IFSMA Newsletter is gratefully acknowledged)

Unmanned and autonomous vessels are a hot topic in the shipping industry at present but whilst rapid advances are being made on the technical side, is the liability regime keeping pace and what are the implications for P&I cover?

Distinguishing unmanned and autonomous vessels

To begin with, it is important to draw a distinction between unmanned and autonomous vessels. For the purposes of this article, unmanned vessels (UVs) are defined as

vessels without crew on board but which are controlled remotely from the shore. Whereas, autonomous vessels (ASVs) are pre-programmed vessels that operate using algorithms.

The existing legal and regulatory framework

Much of the existing commentary on this topic focuses on whether UVs and ASVs fall within the definition of a 'ship' for the purposes of existing regulations and legislation. The general consensus seems to be that UVs can be categorised as ships and, although ASVs don't fit as neatly into this definition, they too would likely still be considered ships.

With this in mind, questions have arisen about the application of key international conventions such as the UN Law of the Sea Convention 1982 (UNCLOS), the International Convention for the Safety of Life at Sea 1974 (SOLAS) and perhaps most importantly, the International Regulations for Preventing Collisions at Sea 1972 (COLREGS).

Attention has focussed on Rules 2 and 5 of the COLREGS as both assume some human involvement. In particular, Rule 2 requires the Master and crew to comply with the Rules and Rule 5 requires every vessel to maintain a proper look out. This poses the question – how can either Rule be complied with when there are no crew on board? For example, would shore side personnel remotely operating a UV constitute a Master or crew for the purposes of Rule 2? Would a UV with fitted cameras constitute a 'proper look out' and is it even necessary or possible for an ASV to comply with Rule 5 if it is operating on a pre-programmed route?



When you start considering the application of existing civil liability conventions, such as the Limitation of Liability for Maritime Claims Convention 1976 (LLMC), this adds another layer of complexity. Helpfully, the LLMC 1976 defines the right to limit by reference to 'shipowners and salvors' and would therefore seemingly apply to UVs and ASVs. However, as with the other conventions, it was not drafted with them in mind and the application varies depending on the jurisdiction.

In light of this, it is clear that amendments will need to be made to the existing regulatory framework to ensure it remains relevant to UVs and ASVs. It is therefore encouraging that the Comité Maritime International has established an International Working Group on Maritime Law and Unmanned Vessels to draft a Code of Conduct. However, given the length of time it takes to garner international con-

sensus on such issues, it seems likely that the technology and use of UVs and ASVs will soon overtake the existing legal regimes. In the interim, national legislation, contractual wordings and insurance is likely to fill the void. For example, Maritime UK has already published an Industry Code of Practice for Maritime Autonomous Systems Ships (MASS), the intention of which is to set standards and best practice for ASVs of less than 24 metres in length.

Looking to the future – what can be learnt from driverless cars?

When considering how the legal framework may change, it might be helpful to consider another area of the transport industry, driverless cars. The technological developments in this area already far outstrip the shipping industry, with companies such as Tesla and Google having already built and tested driverless cars.

The UK government has announced heavy investments in this area with a new Transport Bill currently in consideration. As part of this Bill, there is a proposal to create the first driverless car legislation and review the allocation of civil liability between the driver and manufacturer. Early indications suggest that liability could lie with the manufacturer if the accident was caused due to a defect with the design of the product, but with the driver if it was being operated autonomously at the time of the accident. For individual drivers, there are suggestions that they may require 'no fault' based insurance which would respond if any damage or injury was sustained whilst they were operating the car.



This raises some potentially interesting parallels with UVs and ASVs. For example, if there was a defect with an ASV which caused a collision that could solely be attributed to a software malfunction, should the manufacturer be found solely liable and would this be covered by their product liability insurance?

Whereas if a UV was involved in a collision that was partly the fault of the manufacturer and partly the fault of the shore side personnel operating the vessel, would liability be apportioned or would a 'no fault' based liability kick in holding the owner of the vessel solely liable? Whilst the answers to these questions currently remain unclear, given the rising use of this technology across the shipping industry, a solution will undoubtedly be found.

The implications for P&I insurance

From the Club's perspective UVs and ASVs have some significant potential advantages in terms of reducing the number of claims arising from human error in the navigation of vessels. The Club assesses the cause of all notified claims and on average 38% are caused by human error. In addition, approximately 42% of claims are categorised as personal injury claims, which would significantly decrease were UVs and AVs to become more commonplace, as well as reducing wage bills.

The P&I cover sold by the Club obviously responds to Members' third party liabilities and whilst the regulatory framework struggles to keep pace with these changes, the Club recognises that it must adapt quickly and help lead the way.

(This is one of a series of articles produced by the Shipowners' P&I Club on the topic of unmanned vessels from the Club's perspective.)

The others can be seen on the Club's website here: <http://tinyurl.com/yc7he9ea>

BBC Xingang fire

ATSB report

On 25 May the Australian Transport Safety Bureau released its investigation report into a fire on board *BBC Xingang* in Newcastle, New South Wales on 11 December 2017.

BBC Xingang is a multi-purpose, heavy lift, general cargo ship registered in Antigua and Barbuda. The ship was built in 2013 by Tianjin Xingang Shipbuilding Heavy Industry, China, and classed with DNV GL. The ship has an overall length of 125.8 m, a moulded breadth of 22.0 m and a deadweight of 8,970 t at its summer draught of 7.60 m.

This multi-purpose ship can carry containers and/or general cargo. It has two cargo holds with tween decks. Two 350 t capacity cranes are mounted on the port side and can be used in combination to lift loads up to 700 t. At the time of the incident, *BBC Xingang* was owned by Briese Schiffahrts 'Hatshausen', operated by BBC Chartering & Logistics and managed by Briese Schiffahrts, all of Germany.

Summary

The ATSB's investigation report into the fire on board *BBC Xingang* demonstrates the importance of hot work on board ships being constantly monitored and proceeding with comprehensive risk controls and procedures.

Hot work (oxy-acetylene welding techniques) were required for the removal of sea fastenings on the ship's tween deck. A fire watch team was arranged and fire blankets were placed in the gaps between the tween deck pontoons to protect the cargo below. However, the

hot work created molten metal and other hot material that burnt through to the cargo below and ignited the cargo coverings. The fire was quickly extinguished on discovery.

The ATSB investigation found the hot work took place without the flammable nature of the cargo coverings being identified and that the fire watch team had not been directed to closely monitor the immediate area below the hot work.

The full ATSB report can be read here:

<http://tinyurl.com/y99dnep6>

Further action

Constant vigilance and appropriate risk controls can reduce the danger of ship fires from on board hot work.

The ATSB has reminded ship operators of the constant danger of ship fires from on board hot work for the removal of sea fastenings.

ATSB Executive Director, Transport Safety, Nat Nagy said ship fires from hot work to remove sea fastenings are a constant danger. Implementation of comprehensive risk controls and procedures should include detailed task-specific appraisals, risk and hazard assessments, work permits, and toolbox meetings.

Nagy commented: *This is the third time the ATSB has investigated ships' fires that were found to be caused by hot work to remove sea fastenings. It's important that ship crews do not underestimate the safety risk of this common activity and remain vigilant while undertaking hot work. Implementation of comprehensive risk controls and procedures should include detailed task-specific appraisals, risk and hazard assessments, work permits, and toolbox meetings.*

'Ship operators need to be mindful that the responsibility for the implementation of these controls rests with the ship's master, especially when shore labour is involved and multiple organisations' safety and work procedures could apply,' concluded Nagy.

About the ATSB

The Australian Transport Safety Bureau (ATSB) is an independent Commonwealth Government statutory agency.

The ATSB is governed by a Commission and is entirely separate from transport regulators, policy makers and service providers. The Bureau's function is to improve safety and public confidence in the aviation, marine and rail modes of transport through excellence in: (a) independent investigation of transport accidents and other safety occurrences; (b) safety data recording, analysis and research; and (c) fostering safety awareness, knowledge and action.

Furthermore, the ATSB is responsible for investigating accidents and other transport safety matters involving civil

aviation, marine and rail operations in Australia that fall within Commonwealth jurisdiction, as well as participating in overseas investigations involving Australian registered aircraft and ships.

A primary concern is the safety of commercial transport, with particular regard to fare-paying passenger operations.

The ATSB performs its functions in accordance with the provisions of the Transport Safety Investigation Act 2003 and Regulations and, where applicable, relevant international agreements. The object of a safety investigation is to identify and reduce safety-related risk. ATSB investigations determine and communicate the safety factors related to the transport safety matter being investigated.

It is not a function of the ATSB to apportion blame or determine liability. At the same time, an investigation report must include factual material of sufficient weight to support the analysis and findings. At all times the ATSB endeavours to balance the use of material that could imply adverse comment with the need to properly explain what happened, and why, in a fair and unbiased manner.

Norwegian Star, loss of propulsion, Bass Strait

10 February 2017

On 9 February 2017, the Bahamas-flagged passenger cruise ship *Norwegian Star*

(91,740grt, built 2001, Classed DNV GL) departed Melbourne, Australia, on a scheduled cruise to Dunedin, New Zealand. There were 2,113 passengers and 1,017 crew on board. On departure, the starboard propulsion unit was operational following its recent repair, and the port propulsion unit was under repair following its failure on 24 January. This meant that the ship was operating only with the starboard propulsor.

At about 0134 on 10 February, *Norwegian Star* was about 22 NM south-west of Cape Liptrap, Victoria, Australia, when the starboard propulsion unit failed. Propulsion could not be restored and tugs were deployed from Melbourne to tow the ship back to Melbourne. The ship arrived back without further incident at about midnight on 11 February.

ATSB findings

The ATSB found that *Norwegian Star* lost function of its starboard propulsion as a result of the failure of the recently repaired starboard exciter. The configuration of the exciter unit had been modified as part of its repair, and the unit failed as a result of an error in the design of the modification. Insufficient clearance had been provided to allow for movement and thermal expansion of components during the unit's operation. This error was not detected during the design, installation and trialling of the modified exciter unit.

Need for the repair of the starboard exciter unit had fol-

lowed its failure on 11 December 2016. Failure of the unit in its original (as-built) configuration, and the subsequent failure of the original port exciter unit on 24 January, were both probably due to a breakdown in electrical insulation. Processes for the monitoring of exciter unit condition were ineffective in detecting deterioration prior to unit failure.

The ship operator's decision to sail from Melbourne with only the starboard propulsion unit did not breach any regulatory requirement and was based on confidence in the reliability of the repaired starboard unit. While the repaired exciter was of proven design concept, the detailed design specific to this propulsion system application had not previously been used in-service.

ATSB action

The ATSB has issued recommendations to the ship operator Norwegian Cruise Line Holdings and the equipment manufacturer ABB Industry Oy to review the processes for monitoring the condition of brushless exciter units in Azipod installations, considering the mechanism of failure of the port and starboard brushless exciter units on Norwegian Star.

Safety message

Operation of newly designed equipment without redundancy increases operational risks. Equipment manufacturers and ship operators must apply extra diligence when designing, installing and operating modified equipment, especially safety critical equipment.

The full ATSB report is available here:

<http://tinyurl.com/ybj6tmwc>

ClassNK releases Guidelines for Concept Design of Automated Operation/ Autonomous Operation of ships



It was announced from Tokyo on 2 June that classification society ClassNK has released its *Guidelines for Concept Design of Automated Operation/Autonomous Operation of ships*. These guidelines incorporate basic elements on concept design safety for automated ship operation systems.

In the automobile field, research and development on automated driving systems is being conducted worldwide. In the maritime industry, efforts towards the development of automated operation systems for ships are being made aiming to improve navigation safety, working conditions onboard, ship operation, and more. This development of automated operation systems is expected to be achieved step by step for merchant ships in order to support their

crews. There are exceptions it is understood.

As onboard operations and duties performed by ships' crews vary widely it is essential to clarify the targeted operations/duties that would be automated, and to distinguish the division of roles between the crew (humans) and the automated operation systems (machines). Furthermore, there is a need to establish common understanding between everyone involved in the operation of the ship.

In the light of the above, ClassNK developed these Guidelines with safety in mind in order to address the elements which must be considered in the concept design of automated ship operation systems.

As there will likely be a variety of different design developments when it comes to the automated operation of ships, these Guidelines have been tentatively published as a provisional version which will be finalized through proper review over time.

ClassNK also plans to develop further guidelines for various stages on the automated operation of ships from development of design to actual operation.

The guidelines are available to download free of charge via ClassNK's website www.classnk.com and, particularly, the ClassNK My Page service.

EU-Funded Project to Enable Autonomous Navigation in Close Proximity

KONGSBERG Coordinates with Ocean Space Drones 1 and 2

Hull to Hull established to develop digital twin technology combining GNSS with 3D modelling for navigation support and autonomy controller input.



It was reported by Kongsberg on 31 May that Hull to Hull (H2H) is an EU-funded research project established to develop technical solutions for safer navigation in close proximity to stationary vessels, those underway, and fixed objects. This is now in its Concept Definition phase and will move on to the Technology Adaption and Integrations Work Package (WP03) this summer.

H2H was established in November 2017 to develop methods using the European Global Navigation Satellite System (EGNSS), EGNOS and Galileo, that can enhance safety in busy waters and during close manoeuvring, helping mariners to take the correct navigation decisions and create

fundamental conditions for autonomous vessel navigation. Furthermore, H2H aims to create a system that will allow proximity zones to be set for own vessel as well as neighbouring objects, with high precision and high integrity.

H2H focuses on the provisions for measuring location and orientation of a vessel and creating a 3D digital twin representing the vessel's hull, which is linked to a coordinate system, for example WGS84. This data can then be used as an input to an autonomy controller. H2H will also support manual navigation, providing reliable input for the shipmaster or navigator to make better informed decisions. This could potentially be achieved by displaying the digital twin on the ECDIS or other display systems.



KONGSBERG's Ocean Space Drones 1 and 2 will be important test platforms in the H2H project.

This project is coordinated by Kongsberg Seatex, a subsidiary of Kongsberg Maritime, developing maritime sensing and connectivity capability. Expert project partners include SINTEF Ocean and SINTEF Digital for broad research-based expertise; KU Leuven, a leading European university and expert on inland waterways navigation and Mampaey Offshore Industries, a Dutch company specialised in towing, berthing and mooring systems.

H2H is divided into nine work packages, of which four are led by Kongsberg Seatex. The pilot system will be developed in WP03, where the main objective is to define precise sensors and communication systems, and develop an integrated operation based on the best available technology. Furthermore, this will be implemented using protocols and 3D models described in the concept. It will also research specific needs related to auto-mooring and inland waterways, perform laboratory testing of various sensors and technologies and develop test scenarios for demonstrations scheduled for 2019 and 2020 in Norway's Trondheimsfjorden, in Rotterdam harbour and on Belgian inland waterways.

In the words of Per Erik Kvam, Project Manager, Kongsberg Seatex: *'We will implement the pilot system that will form the basis for all three demonstrations. This includes integration of sensors, building 3D models, and implementation of relative GNSS and communications protocols. We are also responsible for providing the pilot system, and for the integration and installation for the Trondheimsfjorden demonstration, where we will show how we can control the location of the hull on two vessels involved in a simultaneous operation.'*



H2H Proximity zones.

The overall objective of the project is to address the need of the maritime community to safely navigate in close proximity of other vessels and objects, being stationary or moving.

Readers are invited to refer to Hull to Hull's website for up to date information on the project:

<https://www.sintef.no/projectweb/hull-to-hull/>

An introductory video showing Kongsberg Seatex's capabilities with precision positioning and motion sensing, is to be found here: <http://tinyurl.com/ycc62dgm>

Graphic kindly provided Kongsberg Seatex©.

Wider international cooperation on maritime digitalization and e-navigation

The Danish Maritime Authority widens the international work on digitalization and e-navigation and enters into a cooperation agreement with the Republic of Korea (ROK), Sweden, Australia and the People's Republic of China (PRC). This was reported by DMA from Seoul on 4 June.



Up until this date Denmark has had cooperation agreements (MoU) on e-navigation with the ROK and Sweden, but in order to strengthen the focus on digitalization in the

maritime sector, the cooperation is now widened to include Australia and the PRC.

On the morning of 4 June Andreas Nordseth, Director General of the Danish Maritime Authority, participated in opening the conference: e-Navigation Underway 2018 Asia Pacific in Seoul, ROK where the new cooperation agreement was later signed.

Nordseth commented: 'Cooperation and global solutions is the way forward if digitalization is to ensure development, growth and increased safety. From the Danish side, we are pleased with the widened cooperation. We share a common interest in promoting the digital agenda, including global e-navigation solutions.'

The Danish Maritime Authority has for the past couple of years entered into several cooperation agreements or MoU with other leading maritime nations to promote Danish views and positions of strength on maritime policy.

Such cooperation agreements benefit both the Danish Maritime Authority's ability to act as an authority, while Danish shipping can benefit from bilateral contact existing at a governmental level.

Project Forward to develop new generation bulk carriers

It was reported at the end of May that Eniram, a Wärtsilä company, had signed an MoU with Athens-based Arista Shipping to participate in the Project Forward initiative, which is led by Arista. This project has developed a dry bulk carrier vessel (see *computer generated illustration here*) that features an unprecedented high level of energy efficiency, it is reported. The carrier's design is based on LNG-fuelled propulsion. Eniram's contribution will be to assist in the development of monitoring and optimisation tools.



It is understood that the vessel design will enable compliance with all known, applicable, and anticipated regulations proposed by the IMO. These include the Energy Efficiency Design Index 2025, SOx post 2020, and NOx Tier III without any after treatment.

In the words of Antonis Trakakis, Technical Manager, Arista Shipping: 'Project Forward represents a milestone for the shipping industry, since it brings a substantial dis-

continuity to traditional ship design and performance. The project establishes LNG as a global marine fuel ... The aim of the project is to arrive at a fully elaborated decision support tool, which will be extremely valuable in enabling us to predict, monitor, optimise, and also demonstrate the actual performance of the vessels.'



Wärtsilä is also a part of the project team because of its experience and technologies in LNG propulsion. This concept is to be based on a novel arrangement featuring just two highly efficient Wärtsilä 31DF dual-fuel engines (*illustrated*) without additional generator sets. Other parties involved include Finnish ship designer Deltamarin, the Houston-based classification society ABS, and GTT, the French LNG membrane containment system designer.

It is understood further that Arista Shipping has signed a Letter of Intent with Yangzijiang Shipbuilding (YZJ) to build a series of up to 20 bulk carriers to the new design.

Autonomous Vessels for Offshore Wind Operations

A new £900k joint industry project is set to explore the technical, regulatory and societal issues of using autonomous surface vessels, integrated with existing manned shipping operations, to support offshore wind farm operations and maintenance. This was reported in May.

The ultimate goal of the 18-month Windfarm Autonomous Ship Project (WASP) is to develop a timeline for the phased introduction of autonomous vessels.

Previous research has found that vessels can account for as much as 60% of an offshore wind farm's operating costs, which in themselves make up almost a quarter of the total lifecycle costs. These costs could be significantly reduced through the introduction of Robotics and Artificial Intelligence (RAI) it is reported.

Increasing use of autonomous vessels will also lead to the creation of highly skilled, cross-sector jobs in areas such as the integration and planning of autonomous vessels, boosting the UK's maritime and digital supply chains, it has been claimed.

This project, which is part funded by Innovate UK and led by ASV Global, in partnership with the Offshore Renewable Energy (ORE) Catapult, SeaRoc Group, Houlder and University of Portsmouth, will set out to verify the benefits and build the case for the use of autonomous vessels.



As part of the project, ASV Global will be further advancing its world-leading autonomous control system to tackle the challenges presented by the operation of autonomous vessels in the constrained environment of a windfarm. ORE Catapult will work on the use cases and validation of the cost savings created by the project.

SeaRoc Group will be extending its SeaPlanner software to assist with the monitoring and operation of autonomous vehicles and the introduction of advanced cargo-planning systems. While the University of Portsmouth will assist with efficient route planning, logistics management and system analytics. Houlder will develop the vessel design and an innovative handling system to enable autonomous cargo transfer.

It is understood that the project team will work with industry sponsor Ørsted, who will provide use cases from its Hornsea One offshore wind farm, located 120km off the Yorkshire coast. Manned operations will be used as the baseline to compare the time, cost and performance of unmanned ships in different roles, including asset surveillance, security patrols, component spares supply and crew transfer operations.

New products will come from adaptation of marine coordinator systems to operate with both manned and unmanned vessels, optimised navigation systems from autonomous vessels and robotic systems to support offshore operations.



ASV Global Senior Director, Business Development Dan Hook commented: *'The WASP project provides the perfect opportunity to show how far autonomous vessels have progressed. A sector roadmap for the integration of autonomous vessels into offshore wind farm operations and maintenance will enable the supply chain to prioritise and address the opportunities and challenges.'*

Simon Cheeseman, Strategy Manager at ORE Catapult, added: *'This is an excellent example of where we can deliver true cross sector benefit, creating products that can be used across a number of maritime sectors including offshore wind, search and rescue, oil and gas, and border force. Automotive, aerospace, and defence are all embracing autonomous systems to carry out some of what we term the '5Ds' – jobs which are dull, dangerous, dirty, distributed and dear (expensive).'*

'Our industry is always looking for ways to reduce the need to send people offshore in a hazardous environment, at the same time as driving down costs whilst continually improving performance. WASP will assess the issues involved in integrating unmanned vessels operations and start to build the evidence to validate our initial findings.'

Videotel online training and multi-device support

KVH Videotel™ has announced a major update to its Videotel Performance Manager™ (VPM) to include fully integrated online training making its content available whenever and wherever seafarers may be.

Alongside its state of the art Videotel on Demand system, KVH Videotel's suite of eLearning material can be accessed online on any web-enabled device, with content automatically repurposed for mobile, tablet, and web browsing. This was reported by the company on 5 June.

Such flexibility gives ship operators and maritime colleges the ability to provide crew access to KVH Videotel's material from any location with web access, enabling a high degree of flexibility, as crew may have more opportunities to complete their training schedules wherever they are.

Additionally, online training materials are updated automatically as a new title or edition is launched so that the latest KVH Videotel training is always current.

See also: www.videotel.com

For companies wishing to support talented crew members, online training provides an excellent platform for training away from the vessel, and gives seafarers and companies the tools to develop seafarers' Continued Professional Development (CPD).

It is understood that the cloud-based platform also enables ship operators to keep track of an individual crew member's latest training records in easy-to-view dashboards that monitor skill levels and training schedules such that an individual's skills can be followed.

A new approach needed to combat maritime threats

Report by One Earth Future (OEF)

Piracy incidents off the Horn of Africa doubled last year; overall incidents in the Latin America and Caribbean region increased by 160%; piracy continues to pose a threat in the Gulf of Guinea and kidnap-for-ransom incidents in Asia decreased by 80%

Off the coast of East Africa the number of piracy incidents doubled in 2017 compared to 2016, according to the annual State of Piracy report released in London on 23 May by One Earth Future's Oceans Beyond Piracy programme.

This document analyses the human and economic impacts of maritime piracy and robbery at sea in the Western Indian Ocean Region, the Gulf of Guinea, Asia, and Latin America and the Caribbean.

In the words of Maisie Pigeon, the report's lead author: *'Pirate activity in 2017 clearly demonstrates that pirate groups retain their ability to organize and implement attacks against ships transiting these regions.'*

Western Indian Ocean

Incidents have posed an additional threat to shipping transiting the Gulf of Aden and the Red Sea.

Phil Belcher, Marine Director of INTERTANKO commented: *'There are now a wide range of threats to shipping near the Horn of Africa that have been complicated by the conflict and instability in Yemen. We are advising our members to consider a more comprehensive security assessment to take into account other threats beyond traditional piracy emanating from the regional conflict in Yemen.'*

Latin America and the Caribbean

Maritime crime in Latin America and the Caribbean is also on the rise with incidents increasing by 160% overall. Pigeon added: *'We have observed a significant increase in violent incidents and anchorage crime, particularly in the anchorages of Venezuela and the recent violent incidents off Suriname in the first part of this year.'*

Gulf of Guinea

Piracy and armed robbery in the Gulf of Guinea continue at persistently high levels. In 2017, 1726 seafarers were involved in a total of 97 incidents, despite the increased efforts of regional states and contracted maritime security providers.

Furthermore, this report shows a US\$13.2 million increase on spending by regional states on law enforcement and naval patrols. There has been a continued proliferation of contracted maritime security schemes. A Republic of Korean warship, *Munmu the Great*, was re-deployed to the Gulf of Guinea in response to the kidnapping of three ROK fishermen in March.

'Kidnap-for-ransom continues to plague the region, which is a trend that has unfortunately continued from 2016,' said Pigeon. The report found that 100 crewmembers were taken hostage in 2016.

Asian waters

The piracy situation in Asia improved considerably in 2017, with overall incidents down by over 20% from 2016. Most encouraging was that kidnap-for-ransom attacks decreased from 22 in 2016 to just 4 in 2017. *'We believe that much of the credit for this progress is due to the trilateral patrols between the Philippines, Malaysia, and Indonesia,'* said Gregory Clough, Ocean Beyond Piracy's acting director.

Overall view

Having assessed the state of global piracy and armed robbery dating back to 2011, OEF has concluded that piracy is just one of a number of topics affecting maritime security. Criminal gangs operating at sea have been observed moving between different crimes and can sustain themselves without necessarily resorting to piracy. OEF has observed growing consensus that piracy and other crimes cannot be comprehensively addressed unless the maritime community begins to address the broader issues that create insecurity at sea.

'Piracy is just one issue in a complex web affecting maritime security,' said Larry Sampler, OEF's president, who added: *'Where there is good governance seas are safer, coastal communities are healthier, and the blue economies grow stronger. OEF is committed to promoting global maritime security.'*

The Coast Guard queried the AMVER system and located the Singapore-flagged container ship, *CMA CGM Brazil*, and requested her divert to assist the yacht. The master of the 620-foot ship agreed to divert and assist if possible. At the time *CMA CGM Brazil* was only 45 miles away from the distress location and was able to locate the yacht.

The master and crew of the container ship devised a plan to tow the sailboat to a shallow, safe harbour. Despite ten knot winds and five foot waves, the crew of *CMA CGM Brazil* was able to tow the stricken craft to St. Martin. The two sailors were in good health and able to stay aboard their yacht.



CMA CGM Brazil, which enrolled in AMVER on 30 November 2015, handed over the yacht and two survivors to St. Martin Coast Guard authorities and resumed her voyage.

The history of AMVER

The genesis of the AMVER system ultimately finds its roots in the RMS *Titanic* disaster of 1912. Ships passing within sight of the ill-fated passenger liner were unaware that she had hit an iceberg and was sinking. Upon later investigation, those who had seen the distress flares from the stricken ship admitted they thought they were merely part of the maiden voyage celebrations.

However, the resultant idea of a ship reporting system that could identify other ships in the area of a ship in distress, which could then be sent to its assistance, would not become a reality until the advent of computer technology. As late as the mid-twentieth century the world's commercial shipping fleet and burgeoning air transport system lacked an available full-time, global emergency reporting system. On 15 April 1958 the United States Coast Guard and com-

mercial shipping representatives began discussions which led to the creation of AMVER.

Originally known as the Atlantic Merchant Vessel Emergency Reporting (AMVER) System, it became operational on 18 July 1958. AMVER began as an experiment, confined to waters of the North Atlantic Ocean, notorious for icebergs, fog and winter storms. Vice-Admiral Alfred C Richmond, Coast Guard Commandant at the time, called on all commercial vessels of US and foreign registry, over 1,000 gross tons and making a voyage of more than 24 hours, to voluntarily become AMVER participants. The basic premise of AMVER, as a vehicle for mariner to help mariner without regard to nationality, continues to this day.

Photo credit: crew of the CMA CGM Brazil

mv Ruyter grounding

10 October 2017

Marine Accident Investigation Branch (MAIB) report

In summary, the MAIB report (No11/2018 published on 20 June 2018) indicated that at 2311 on 10 October 2017, The Netherlands registered general cargo vessel *Ruyter* (89.99m loa; 2528gt; built 2006) on passage from Skagen, Denmark to Warrenpoint, Northern Ireland, ran aground on the north shore of Rathlin Island. It was found that the master who was the watchkeeper had left the bridge unattended.

The bridge navigational watch alarm system, which could have alerted the chief officer to the fact that the bridge was unmanned, had been switched off. Consequently, no action was taken to correct a deviation from the ship's planned track.

There was extensive damage to the forward third of the hull. No pollution was reported.

It was found that the master had been consuming alcohol prior to taking over the watch but the chief officer, who had previously warned the master against excessive consumption of alcohol, had been satisfied that the master was fit for watchkeeping duties.

Report and safety lessons

The MAIB report into the grounding of *Ruyter* is available here: <http://tinyurl.com/ya3su78t>

Analysis of the incident has delivered the following safety lessons:

- When the sole watchkeeper left the bridge unattended and the bridge navigational watch alarm was turned off, there was no means to alert the chief officer to the fact that the bridge was unmanned.
- The consumption of alcohol prior to taking over

the watch had an adverse effect on the master's ability to maintain a safe navigational watch.

- Although the chief officer had concerns about the master's excessive alcohol consumption, he did not feel sufficiently empowered to raise the matter with the company.

As for recommendations, in view of the actions taken, none are made.



Photo: Crown Copyright 2018 / MAIB ©.

Fighting corruption in the maritime sector

Introducing the Maritime Anti-Corruption Network (MACN)

You will have seen in Commodore Jim Scorer's foreword mention of the Maritime Anti-Corruption Network and this article goes further in explaining what the Network is and what it does.



Seafarers and those working in maritime business operations continue to face demands for payments, goods, or favours to carry out business-as-usual operations. These demands have many names: *chai* (which means “tea” in Hindi), *shai bil yasmeen* (Arabic for “jasmine tea”), a *refresco* (Spanish for “soda”), or even for an extra *schmeear* (Yiddish for “spread”) – but the effect is the same. These

demands are unethical and illegal, and they endanger the men and women onboard our vessels. But we know that if we work together – and with a range of stakeholders around the world – we can reduce and eliminate these demands.

That is the Maritime Anti-Corruption Network's (MACN) mandate. Collectively, MACN can have a game-changing effect on corruption and bribery around the world. The private sector has a critical role to play in eliminating corruption. While companies recognise that there is a pressing need to take a firm stance against corruption, it is becoming increasingly clear that only by working collectively will the private sector be able to tackle the systemic changes in the operating environment that are required to eliminate corruption. This is particularly true in the global maritime industry, where corruption occurs as a result of the interplay of a multitude of public and private sector stakeholders.

The Maritime Anti-Corruption Network (MACN)

MACN is a global business network working toward its vision of a maritime industry free of corruption that enables fair trade to the benefit of society at large. Established in 2011, MACN is composed of vessel-owning companies, ship managers, cargo owners, and service providers within the main sectors of the maritime industry.

MACN and its members work towards the elimination of all forms of maritime corruption by: raising awareness of the challenges faced; implementing the MACN Anti-Corruption Principles and co-developing and sharing best practices, collaborating with government and non-governmental organisations, working with civil society to identify and mitigate the root causes of corruption, and creating a culture of integrity within the maritime community.

Fighting Corruption Through Collective Action

MACN seeks to improve the operating environment by catalysing a collective action. Importantly, with nearly 100 member companies – making up a substantial percentage of the global tonnage – the network wields considerable commercial influence in the fight against corruption and bribery.

For change to occur, key maritime sector stakeholders must be involved in both assessing the challenges and devising the solutions. This collective approach also stresses the importance of transparency throughout the process of engaging in collaborative efforts. Stakeholder inclusiveness, local ownership, and transparency are thus fundamental to the collective action approach by MACN.

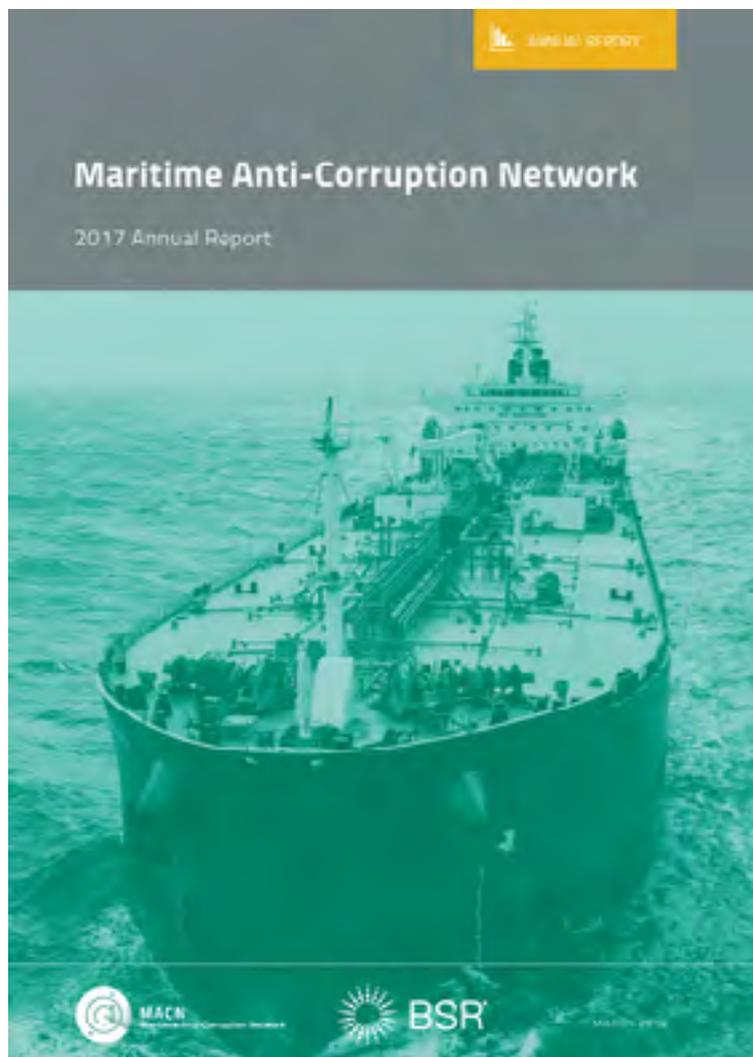
Through its Collective Actions, MACN has inspired and delivered increased participation in the Suez Canal Say No campaign, developed a new regulatory framework for the dry-bulk vessel clearance process in Argentina and trained over 400 stakeholders and open-sourced guidance to support implementation, enhanced container tracking in Indonesia, and delivered ethics training for close to 600 government officials in Nigeria.

The Importance of Data

The information MACN collects on corruption and bribery plays a key role in its collective action projects, providing industry expertise in identifying the highly specific drivers of corruption in a certain port or country.

MACN's 'Say No' Suez campaign assessed the impact of the campaign by surveying members and collecting incident data. This situation has improved every year, and feedback in 2017 shows that companies taking part in the campaign are transiting Suez without any delays. Demands for cigarettes have decreased dramatically, or have been eliminated, while threats to the safety of both crew and vessel have also decreased significantly.

In Nigeria MACN's root cause analysis of the Nigerian port sector showed that it typically takes over 140 signatures to get a vessel and cargo cleared by the local authorities, with port officials having wide discretionary powers over the speed of this process. These challenges lead to an unpredictable operating environment for the private sector, and it means costly business disruptions and delays.



How You Can Help: Incident Reporting

MACN's anonymous incident reporting system enables shipping companies and seafarers to submit reports on corrupt demands they have faced during port operations. These anonymous incident reports provide MACN with a strong platform to better understand the challenges and

to engage with stakeholders, including governments, on shared solutions. It also allows MACN members to learn from each other to potentially avoid similar incidents in their own operations. The use of this reporting platform has significantly increased over the years. To date, MACN has collected over 19,000 reports of corrupt demands globally.

MACN uses this data to analyse trends in frequency of incidents, allowing MACN to target collective action efforts and engage with governments. It has been a highly effective way to facilitate a constructive dialogue in meetings with governments and other stakeholders. Reporting is anonymous and non-attributable: It is not possible for anyone to identify who has submitted a report, and the incident does not include details that would identify specific dates, ships, or individuals.

More information on the Network can be found here:
<http://www.maritime-acn.org/>

MACN invites both members and non-members, seafarers and companies, to share details of corrupt demands or threats.

Every report helps the overall fight against corruption and those wishing to share anonymous data on incidents can use the following link:
<https://www.surveymonkey.com/r/MACN>

Day of the Seafarer 2018

This year, once again, 25 June marked the annual Day of the Seafarer (DotS) and the 2018 theme was the Support of Seafarers' Wellbeing.

Background

DotS was established in a resolution adopted by the 2010 Diplomatic Conference in Manila to adopt the revised STCW Convention. Its stated purpose is to recognize the unique contribution made by seafarers from all over the world to international seaborne trade, the world economy and civil society as a whole.

The resolution adopted: '*encourages Governments, shipping organizations, companies, shipowners and all other parties concerned to duly and appropriately promote the Day of the Seafarer and take action to celebrate it meaningfully.*'

Day of the Seafarer is recognised by the United Nations as an observance day.

A seafarer's job can be rewarding and fulfilling, but it can also have its more difficult moments. Many different factors can affect the quality of life at sea. They include shore leave, the threat of abandonment, prompt payment of wages, the prospect of criminalisation and even simple things such as internet access and provision of exercise facilities on board ship.

In the words of IMO Secretary-General Kitack Lim, in his annual Message for the Day of the Seafarer: 'Day of the Seafarer 2018 provides a platform to advocate for higher standards of welfare and enable shipping companies and others within the industry to show how they provide a good working environment for seafarers and thereby make a positive contribution to their wellbeing.'



This year seafarers themselves are being encouraged to share their own views and experiences through an online survey to be found here:

<http://tinyurl.com/y83pamb4>

Results of the survey will be thoroughly analysed and presented to the IMO Council.

Furthermore, the 2018 Day of the Seafarer campaign also had a positive message. Seafarers were invited to share on Twitter what a [#GoodDayatSea](#) looks like.

In addition they were offered the chance to enter the IMO/ International Seafarers' Welfare and Assistance Network ([ISWAN](#)) photo competition, which is sponsored by The North American Maritime Ministry Association ([NAMMA](#)). Some of the entries received so far are available here: <https://dayoftheseafarerphotos.imo.org/>

An introductory video showing Secretary General Kitack Lim speaking on the Seafarers' lot is to be found here:

<http://tinyurl.com/y932wgba>

UK and Irish waters

Differential GPS user survey

The General Lighthouse Authorities of the UK and Ireland are conducting a survey to gauge current and future user requirements for their Differential GPS service. This was announced at the end of June 2018.

Introduction

The authorities are now surveying users across a wide variety of sectors to better understand how the Differential GPS service is being used. This service currently provides corrections for GPS (single frequency) only, but the technology is being developed to enable corrections to be provided for all Global Navigation Satellite Systems (GNSS), should there be a requirement. Survey results will be used to establish current and future user needs.

In order to ensure that the GLAs are well-informed and therefore able to make the best provision for future requirements, they are looking to gather as much user feedback as possible and encourage all users, from all sectors,

to complete the survey.

It is important for respondents to understand that this is a survey about the Differential GPS service and not GPS / GNSS.

Link to survey document

The survey will take about five minutes to complete. All responses will be kept confidential and any identifiable information will be managed in accordance with General Data Protection Regulations (GDPR).

Survey responses can be provided until 31 August 2018.

The survey can be completed online at <http://tinyurl.com/ycjcv6nc>

Alternatively, the survey can be downloaded from the nearby pdf for offline completion and then e-mailed to: requests@gla-rnav.org

Progress for protection

Hazardous and noxious spills

It was reported on 2 July that Denmark has acceded to the global regime on compensation for damage caused by the carriage by sea of hazardous and noxious substances of the 2010 HNS convention.

Chemicals and other dangerous substances occasionally end up in the ocean after ship collisions and other accidents at sea. And this can cause serious damage to the environment, property and health. Taking up the need for protection, Denmark has approved the 2010 protocol to the convention on liability and compensation for damage in connection with the carriage of HNS substances by sea.

HNS substances can be defined as various hazardous and noxious substances.

The convention ensures a uniform and global set of liability rules for damage following carriage of HNS substances by sea. In the case of large pollution damage, where the damage exceeds a certain amount, the HNS Fund can be charged with the coverage of the damages by the HNS substances. The HNS Fund is administered by the IMO.

The Danish Minister of Business has requested the Danish Maritime Authority to enforce the rules of the convention in Denmark, including issuing insurance certificates for Danish ships.

Director General Andreas Nordseth, Danish Maritime Authority said: 'We are now making sure that potential victims of an incident with hazardous and noxious substances at sea, are more likely to receive compensation. This ensures better protection for all, once the convention enters into force internationally.'

It is reported that Denmark is following in the footsteps of Norway, Canada and Turkey and is thus the fourth country

to ratify the 2010 protocol to the HNS convention.

Strict liability for the shipowners

To ensure liability for damage following an incident involving HNS, the registered owner of the ship is strictly liable to pay compensation.

Demands for ships carrying HNS substances:

Ships are obliged to carry on board a certificate as documentation of valid insurance. Foreign ships are not allowed to call at a Danish port without a valid certificate of insurance.

The Danish Maritime Authority issues insurance certificates to Danish ships, which carry HNS substances.

Parties to the HNS convention are required to ensure that ships, which sail under their flag, are insured. This also extends to controlling the insurance of foreign ships, which are calling at their ports.



A power point presentation being guidance to the HNS Convention illustrating the benefits of the compensation regime.

When does compensation by the HNS Fund apply?

The shipowner's liability provides the first layer of compensation, while the HNS Fund pays top up compensation when the economic costs of the damages exceeds the limit of the shipowner's insurance. The shipowner's liability is determined based on the tonnage of the ship. In the case of larger pollution incidents, where the damages exceed the limit of the shipowner's liability, the HNS Fund can be required to cover the damages arising from HNS substances, corresponding to the system of compensation that applies to pollution damage that results from spills of persistent oil being carried by sea.

The HNS Fund is financed by contributions from importers of HNS goods in those countries, which have ratified the HNS convention. The amount to be paid by recipients of HNS is proportionate to the tons of HNS substances received in the preceding year.

More information is to be found at:

<http://tinyurl.com/y93lphhn>

Congratulations: IHMA's new President

We send our congratulations to Captain Allan Gray, Harbour Master, Port of Fremantle who has been elected President of the International Harbour Masters' Association (IHMA).

He is well known to us and is, of course, a member of IFSMA through his membership of the Company of Master Mariners, Australia, and was Federal Master during our Australian AGA in Melbourne in 2013.



Allan Gray had a 20 year career at sea and traded in various vessels including ro-ro, container, bulk carriers and LPG tankers. On coming ashore he was a Vessel Traffic Manager at Mackay/Haypoint and Reefcentre. He joined Fremantle Ports in July 2006 as Deputy Harbour Master and was appointed Harbour Master in September 2008.

The 19th IALA Conference

Incheon, Republic of Korea, 26 May to 2 June 2018

More than 500 delegates attended the 19th IALA Conference which was held in the port city of Incheon, Republic of Korea, from 26 May to 2 June 2018.

A total of 94 technical presentations were made in 13 technical sessions and two special sessions over four days, and Conference participants were able to see and discuss the latest developments in aids to navigation and VTS technology in the large industrial exhibition, where a record number of IALA Industrial Members exhibited.

Handling of digital information

The Conference had a strong focus on the development and exchange of maritime digital information to improve the safety and efficiency of maritime transport. It heard that the use of Maritime Resource Names (.mrn) will be needed for the development of globally-harmonised data models to enable implementation of digital maritime services under the IMO e-Navigation Strategic Implementation Plan.

Evolution of the existing AIS system into the VHF Data Exchange System (VDES) was highlighted by a number of presenters as important for secure and reliable digital communications, together with other commercial satellite and terrestrial communications services.

There were presentations also, on the practical use of existing public terrestrial systems for providing safety information to fishing vessels and leisure craft. Cyber security risks in data transfer will continue to grow, and cyber security precautions will remain vital.

Shore authorities in Europe explained how they share AIS data to support maritime domain awareness, and how they are developing traffic management concepts to improve transport chain efficiency.

Effective and unambiguous VTS communications will require common phraseology, procedures and technology for voice communications, and harmonised data models and communications channels for digital information exchange. Revision of IMO Resolution A.857(20) (Guidelines on Vessel Traffic Services) will be necessary for this harmonisation and for a common global understanding and implementation of modern VTS services.

In the sessions on Positioning, Navigation and Timing (PNT) the importance of resilient was underscored. Resilient PNT is vital for electronic navigation and underpins a variety of safety-related services. A mix of dissimilar systems is required to achieve resilient PNT and candidate technologies were explored.



Autonomous vessels considered

Autonomous vessels entering service now and in future will need assured positioning and automatic compensation for GNSS outages or disruption. Satellite-based augmentation system (SBAS), (Ranging) R-Mode, radar positioning and eLoran are electronic systems likely to be used to help achieve the necessary resilience, but there is still no global consensus on a coordinated approach for the maritime world.

The growing use of risk assessment by shore authorities to aid safe navigation was noted. While there is no single

comprehensive tool, IALA's risk management tool box has a set of proven, widely-used assessment programmes. If used correctly, they can greatly assist aids to navigation authorities to evaluate risk, and help coastal states to meet their international obligations.

Traditional visual aids to navigation signalling remains essential in waterways. Increasingly such aids are being supplemented by virtual electronic aids for navigation and for emergencies or disasters. The conference heard of recent changes to IALA Recommendations for visual aids to navigation, of technical developments for practical installation, operation, and maintenance. These conclusions were supported by results of user consultation.

Lighthouse heritage

Helped by many IALA members contributing display material and artefacts, an extensive exhibition of lighthouse heritage supplemented the technical sessions and industrial exhibition, tracing the development of lighthouses and lighthouse life. A national painting competition produced a wonderful array of award-winning paintings from schools across Korea. This exhibition was supported by a special Conference session of the preservation and complementary use of historic lighthouses and their real estate. Presentations explored the cultural, technological, architectural and financial benefits gained from an active heritage programme.

The IALA Council

Incidentally, the new IALA Council (*pictured*) elected in Incheon is represented by the principal aids to navigation authorities of each of: Australia, Brazil, Canada, Chile, China, Denmark, Finland, France, Germany, India, Italy, Japan, Korea, Malaysia, The Kingdom of Morocco, Norway, Singapore, South Africa, Spain, Sweden, The Netherlands, Turkey, The United Kingdom and The United States of America.

Navigation simulation supports design for Tangguh LNG expansion Indonesia

It was reported on 11 June by HR Wallingford in the UK that work had commenced to expand Tangguh LNG plant in Indonesia, which has been operated by BP Berau Ltd since 2009.

An increase in liquefaction capacity of LNG by 3.8 million tonnes per year will lead to an expansion in the marine export facility and construction of a second LNG jetty. McConnell Dowell Indonesia, who are conducting the detailed design and construction of the jetty, commissioned HR Wallingford to conduct ship navigation simulation studies, to inform the suitability of the jetty design.

As part of the design process for the jetty, HR Wallingford undertook a combined fast time and real time ship navigation simulation study. These two elements were used to examine all of the navigation aspects of the Tangguh LNG

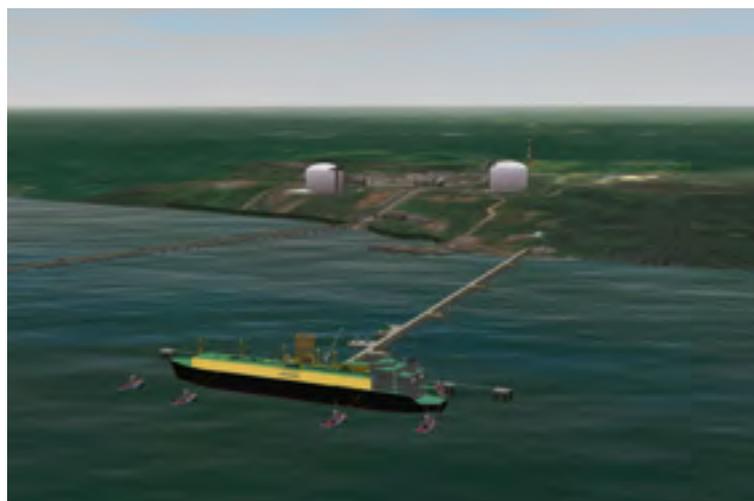
expansion project, including navigation to and from the second jetty, towage requirements, limiting environmental operational conditions, anchorage areas and safety exclusion zones.

The first element of the work, the fast time simulation, used HR Wallingford's Ship Simulation System running in fast time mode. This is used to assist in the design of relatively straight channels. The study focused on the channel and approaches to the new jetty, and examined a number of classes of LNG carriers and condensate tankers.

The second element, the real time navigation simulation, which used a full mission bridge simulator, focused on the final approaches and the turning manoeuvres, where real time simulation is a more reliable tool. In preparation, HR Wallingford's expert flow modellers constructed a 2D hydrodynamic model of the area. This was then validated against in-situ flow measurements which had been carried out prior to the study.

Design Manager for McConnell Dowell, Fabien Cogordan, commented: *'Being able to take advantage of HR Wallingford's fast time simulation meant that we could conduct over 8,000 channel transits, equivalent to over 25 years of vessel calls to Tangguh, in a matter of minutes of computer processing time. Combining this with the real time navigation simulation, provided us with a cost-effective and flexible tool to evaluate and confirm the suitability of the jetty design.'*

Construction of the third installation is now underway and will bring the total plant capacity to 11.4 million tonnes of LNG per annum, with first production expected during 2020.



At HR Wallingford's Australia Ship Simulation Centre, a local Tangguh Pilot and one of HR Wallingford's Staff Pilots, manoeuvred the ships in the final approaches to the virtual second jetty, assisted by up to four 55 tonne bollard pull tugs.

Illustration kindly provided by HR Wallingford ©.

An understanding of voluntary salvage assistance and the reward

An article by Millie Brooks, Claims Handler, London, of the Shipowners' P&I Club.

(Reproduction in The IFSMA Newsletter is gratefully acknowledged)

If you have provided voluntary assistance to a ship, cargo or other recognised salvage subject in distress, you may be entitled to claim a salvage reward.

Under both the Club's* Rules and Plain Language Legal Costs Cover, the Club may be able to cover the legal costs associated with bringing a claim for a salvage reward against the owners of the salvaged vessel or cargo or more commonly, their insurers.

What is salvage?

It is a well-established principle of maritime law that a salvor that is successful in saving a ship or other property at sea is entitled to a monetary reward. This system is in place to provide adequate incentives to vessels to provide assistance not only in saving life and property, but also in preventing damage to the environment.

The framework of modern salvage law is set out in the International Convention on Salvage 1989 ('the Salvage Convention').

Are you obliged to provide assistance to a vessel in distress?

Under Article 10 of the Salvage Convention every master is bound, so far as he can do so without serious danger to his vessel and persons thereon, to render assistance to any person in danger of being lost at sea. However, this obligation does not extend to saving property and there is no positive obligation in law requiring a passing or nearby vessel to provide assistance to a vessel in distress on a voluntary basis.

When does the right to claim a salvage award arise?

In general, in order to claim a salvage reward from the owner of the salvaged property under the Salvage Convention, it must be established that the property was in danger, that the assistance provided was voluntary and that it resulted in the successful salvage of the property.

The first element requires the property to be in real danger. This does not mean that the property must be at risk of a total loss or that the danger must be severe or imminent. The real danger test is usually satisfied by establishing that the property was unable to extricate itself from the situation without assistance, for example, if a vessel had main engine breakdown or blackout.

The second element requires the assistance to be voluntary, which means that the salvor must not be under a pre-

existing legal obligation to provide assistance. This means that coast guards, harbour masters and water police cannot receive salvage rewards because they have an official duty to save lives and property.

The final obligation is that the salvage assistance must have had a useful result in that it resulted in or contributed to the successful salvage of the property in danger. There have been circumstances in which the salvor has been negligent in providing assistance but the salvage operation is ultimately successful. While technically the owners of the salvaged property can pursue a claim against the salvor in negligence, such cases are very rare and more commonly, the reward would be reduced to take into account the negligent actions of the salvor.

Salvors should note that the right to claim a salvage reward in countries which implement the Salvage Convention expires two years from the date the salvage services are terminated. There may be shorter or longer limitations in place depending on the jurisdiction of the claim and to what extent that jurisdiction's local legislation incorporates the provisions of the Salvage Convention.

How much can you claim?

The reward granted to the salvor will never exceed the salvaged value of the property saved and will be determined on a case by case basis. In determining how much to award the salvor, the court or arbitrator would look at the criteria set out in Article 13 of the Salvage Convention. These criteria are as follows:

- The salvaged value of the vessel and other property.
- The skill and efforts of the salvors in preventing or minimizing damage to the environment.
- The measure of success obtained by the salvor.
- The nature and degree of the danger.
- The skill and efforts of the salvors in salvaging the vessel, other property and life.
- The time used and expenses and losses incurred by the salvors.
- The risk of liability and other risks run by the salvors or their equipment.
- The promptness of the services rendered.
- The availability and use of vessels or other equipment intended for salvage operations.
- The state of readiness and efficiency of the salvor's equipment and the value thereof.

In weighing up each of these criteria, the court or arbitrator will usually award the salvor a percentage of the salvaged value of the property saved.

By way of example, the Club recently assisted one of our yacht owner Members in obtaining a salvage reward for assistance provided to a vessel in distress. Our Member's yacht was sailing back toward port with a full passenger load when it was approached by a small tender vessel driven by a crew member of another nearby vessel. The other vessel was a 20m yacht with an estimated value of €250,000. The other vessel had suffered a blackout on board and was drifting off the coast of an island in Greece in waters that were too deep to drop anchor.

Our Member agreed to tow the vessel into the nearby Port where the vessel could disembark her passengers and seek assistance.

Our Member did not incur any additional costs in towing the vessel into port and was delayed in disembarking its own passengers by less than an hour. However, there was a real danger to the other vessel and its crew and passengers, the assistance provided by our Member was voluntary and it was a successful salvage operation. As such, our Member was entitled to a salvage reward. On this occasion, we were able to successfully negotiate a salvage award of €10,000 payable by the other vessel's Hull & Machinery insurers and we did so without appointing any external lawyers, so there were no fees payable by the Club or our Member.

* The Shipowners' P&I Club.

Groundings made by bulk carrier *Ocean Prefect*

Ahmed Bin Rashid Port, Umm Al Qaywayn, United Arab Emirates, 10 June 2017

Marine Accident Investigation Branch (MAIB) report issued

Summary

On 10 June 2017, the UK registered bulk carrier *Ocean Prefect* grounded when approaching Ahmed Bin Rashid Port, in Umm Al Qaywayn, United Arab Emirates. The vessel was not damaged and was re-floated 12 hours later.

During a second attempted entry into the port the following day, *Ocean Prefect* again grounded but, despite the breaching of three ballast tanks, the vessel continued to its berth. Two harbour pilots were on board during the groundings. There were no injuries or pollution.

Safety lessons

- The pilots had very limited local knowledge.
- The effect of a tidal set was contributory to both groundings.
- Tidal stream data for the port's approaches was very limited.
- The positions of the navigation marks used to indi-

cate the limits of the

port's approach channel were potentially misleading.

- The port in Umm Al Qaywayn lacked resource and marine expertise.

Action taken

The MAIB has presented the safety issues identified in *Ocean Prefect's*

groundings to the Director of Maritime Transport Affairs of the UAE Federal Transport Authority (FTA).

The Government of Umm Al Qaywayn has awarded a concession to the Hong Kong-based port operators, Hutchison Ports, to operate the container and bulk terminal facility at Ahmed Bin Rashid Port in Umm Al Qaywayn (UAQ).

The Port Authority has agreed with the UAE Transport Authority that:

- Pilotage for vessels calling at the container and bulk terminal facility will be arranged only through the port authority.
- The port authority will provide navigational information to visiting vessels.
- Leading lights will be established in the approach channel.
- Vessel movements will be controlled and a port control facility will be established.
- A hydrographic survey of the port and its approaches will be conducted.
- Aids to navigation will be upgraded.

V Ships (Asia) Private Limited has issued a safety bulletin detailing the circumstances of *Ocean Prefect's* groundings in Umm Al Qaywayn, which included lessons for Masters / Bridge Teams.



The UK registered bulk carrier *Ocean Prefect*.

Photo taken from Report No 8/2018 kindly provided by MAIB.
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Recommendations

In view of the actions already taken, no recommendations have been made.

The MAIB Report

The Marine Accident Investigation Branch report was issued on 25 April 2018.

Port State Control: Latin America

Concentrated inspection campaign on auxiliary machinery

We hear from ClassNK that the Viña del Mar Agreement Secretariat recently announced that the Maritime Authorities of the Region, Members of the Latin American Agreement on Port State Control (PSC) of Vessels* have launched a PSC joint Concentrated Inspection Campaign (CIC) with the purpose of ensuring compliance with SOLAS Chapter II-1.

It is understood that the scope of the CIC is the safety of auxiliary machinery, especially the working condition and maintenance of auxiliary engines, auxiliary equipment and their related alarm systems. Special attention will be given to familiarity of the crew with safety and emergency procedures with regard to these systems.

This inspection campaign will be held for three months and was due to commence on 1 June 2018 and end on 31 August 2018. It will be implemented in a different period from those scheduled by other memoranda for 2018, as it is not be related with Annex VI of MARPOL.

Auxiliary machinery installations will be verified in more detail for compliance with the mentioned scope of the CIC during a regular Port State Control inspection conducted under the regional ship selection criteria.

Port State Control Officers (PSCOs) will use a list of 12 selected items to verify critical areas for the auxiliary machinery installations, some of which are related to documentation, auxiliary engines and equipment, crew familiarization and operational controls. For this purpose, PSCOs will use a questionnaire listing a number of items to be covered during the concentrated inspection campaign.

The questionnaire is to be found on pages 4 / 5 of the document here:

<http://tinyurl.com/y7q6kr8l>

When deficiencies are found, actions by the port State may vary from recording a deficiency and instructing the master to rectify it within a certain period to detaining the ship until serious deficiencies have been rectified.

Results of the campaign will be analysed and findings will be presented to the Members of the Viña del Mar Agreement at their next Committee Meeting for approval and

later submission to the IMO and the other MOUs.

*Member States of Latin American Agreement on Port State Control of Vessels are: Argentina, Bolivia, Brazil, Chile, Colombia, Cuba, Ecuador, Guatemala, Honduras, Mexico, Panama, Peru, Republic of Dominica, Uruguay, Venezuela.

Collision *Huayang Endeavour* and *Seafreighter*, Dover Strait 1 July 2018

Marine Accident Investigation Branch (MAIB) report issued.

Summary

At 0304 on 1 July 2017, two Hong Kong registered vessels, the bulk carrier *Huayang Endeavour* and the oil tanker *Seafreighter*, collided in the Dover Strait approximately five nautical miles to the west of Sandettie Bank. Both vessels were damaged in the collision but were able to proceed to nearby ports for damage assessment. The accident did not result in any injuries or pollution.

The MAIB investigation identified that a Very High Frequency (VHF) radio conversation between the two vessels had resulted in the two bridge teams holding conflicting views as to what had been agreed regarding *Huayang Endeavour* overtaking *Seafreighter*. Subsequently, *Seafreighter's* bridge team did not check for sea room astern before altering course, leading to a close quarter situation between the two vessels.

In addition, *Seafreighter's* master had been present on the bridge for over 14 hours and was probably suffering from fatigue, which was likely to have had an adverse effect on his decision making.

Safety lessons

Seafreighter's master was operating within his maximum permitted working hours however he was probably experiencing fatigue which resulted in his decision making and reaction times being affected

Huayang Endeavour's bridge team did not complete effective long-range scanning as required by the Convention on the International Regulations for Preventing Collisions at Sea, 1972 (COLREGs)

Use of VHF to resolve the situation was inappropriate as it did not allow sufficient time for effective action to be taken, the language used was not precise or clear and it did not result in a shared plan

Seafreighter's bridge team did not monitor *Huayang Endeavour's* manoeuvres after the VHF conversation and as they did not check for sea room before altering course, were unaware of the bulk carrier's actual position

Recommendations

Following its internal investigation *Huayang Endeavour's* manager has amended its procedures for the use of VHF for collision avoidance, and promulgated the lessons

learned from this accident to its fleet. The manager of *Seafreighter*, has also completed an internal investigation, and has taken a number of steps to train its personnel in bridge and crew resource management, review its procedures, and promulgated the lessons from this accident to its fleet.

In light of the actions already taken, no recommendations have been made.

The Marine Accident Investigation Branch report was issued on 25 April 2018 and is available here:

<http://tinyurl.com/y8jpxgwv>



Extract from The United Kingdom Merchant Shipping (Accident Reporting and Investigation) Regulations 2012 – Regulation 5:

The sole objective of the investigation of an accident under the Merchant Shipping (Accident Reporting and Investigation) Regulations 2012 shall be the prevention of future accidents through the ascertainment of its causes and circumstances. It shall not be the purpose of an such investigation to determine liability nor, except so far as is necessary to achieve its objective, to apportion blame.²

NOTE

This report is not written with litigation in mind and, pursuant to Regulation 14(14) of the Merchant Shipping (Accident Reporting and Investigation) Regulations 2012, shall be inadmissible in any judicial proceedings whose purpose, or one of whose purposes is to attribute or apportion liability or blame.

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All reports can be found on our website: www.gov.uk/maib

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Collision between *Huayang Endeavour* and *Seafreighter* approximately 5nm west of Sandettie Bank, English Channel 1 July 2017

SUMMARY

At 0304:40¹ on 1 July 2017, two Hong Kong registered vessels, the bulk carrier *Huayang Endeavour* and the oil tanker *Seafreighter*, collided in the Dover Strait approximately 5 nautical miles (nm) to the west of Sandettie Bank. Both vessels were damaged in the collision but were able to proceed to nearby ports for damage assessment. The accident did not result in any injuries or pollution.

The MAIB investigation identified that a VHF² radio conversation between *Huayang Endeavour* and *Seafreighter* had resulted in the two bridge teams holding conflicting views as to what had been agreed regarding *Huayang Endeavour* overtaking *Seafreighter*. Subsequently, *Seafreighter's* bridge team did not check for sea room astern before altering course, leading to a close quarter situation between the two vessels. *Seafreighter's* master had been present on the bridge for over 14 hours and was probably suffering from fatigue, which was likely to have had an adverse effect on his decision making.

Following its internal investigation, Huayang Maritime Centre, the manager of *Huayang Endeavour*, has amended its procedures for the use of VHF for collision avoidance, and promulgated the lessons learned from this accident to its fleet. Valles Steamship Company Ltd, the manager of *Seafreighter*, has also completed an internal investigation, and has taken a number of steps to train its personnel in bridge and crew resource management, review its procedures, and promulgated the lessons from this accident to its fleet. In light of the actions already taken, no recommendations have been made.



¹ All times are UTC (universal time co-ordinated) +2
² VHF – very high frequency

Front cover of MAIB report No 7/2018 of April 2018.

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From the IFSMA Office

A very busy time this month as we move office at the end of July having been in our existing office for more than 23 years. This move is necessary due to a proposed large increase in our rent.

You should have received information about our new address by email. You can also find our new address at the top of page 2. Visitors by appointment only please as security is very strict at our new office.

Contributions 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