

INTERNATIONAL MARITIME ORGANIZATION

MARITIME KNOWLEDGE CENTRE
"sharing maritime knowledge"

CURRENT AWARENESS BULLETIN

June 2017



Maritime Knowledge Centre

maritimeknowledgecentre@imo.org

INTERNATIONAL MARITIME ORGANIZATION

www.imo.org





About the MKC Current Awareness Bulletin (CAB)

The aim of the MKC Current Awareness Bulletin (CAB) is to provide a digest of news and publications focusing on subject areas related to the work of IMO. Each CAB issue presents headlines from the previous month. For copyright reasons, the *Current Awareness Bulletin* (CAB) contains excerpts only. Links to the complete articles or abstract on publishers' sites are included when available, though access may require payment or subscription.

The MKC *Current Awareness Bulletin* is published monthly and issues from the current and the past year are free to download from this <u>page</u>.

<u>Email us</u> if you would like to receive email notification when the most recent Current Awareness Bulletin is available to be downloaded.

The *Current Awareness Bulletin* (CAB) is published by the Maritime Knowledge Centre and is not an official IMO publication. Inclusion does not imply any endorsement by IMO.

CONTENTS

IMO / UNITED NATIONS NEWS & EVENTS	2
INDUCTOR NEWS AND DUDI ICATIONS	
INDUSTRY NEWS AND PUBLICATIONS	
UNITED NATIONS NEWS	3
CASUALTIES	
ENVIRONMENT	8
ENVIRONMENTAL POLLUTION	14
HEALTH AND SAFETY	
IMO	16
LAW AND POLICY	17
MARINE TECHNOLOGY	
MARITIME SAFETY	24
MARITIME SECURITY	25
MARITIME TRAINING	29
MIGRANTS	30
NAVIGATION AND COMMUNICATIONS	
PIRACY	34
PORT STATE CONTROL	35
PORTS AND HARBOURS	36
RECYCLING OF SHIPS	39
REGULATIONS	40
SEARCH AND RESCUE	46
SHIPBUILDING AND SHIPREPAIR	46
SHIPPING	47
RESEARCH	



IMO / UNITED NATIONS NEWS & EVENTS

WHAT'S NEW

International Transport Workers' Federation and Seafarers' Rights International Workshop on the fair treatment of seafarers

Seafarers' rights to be treated fairly in all circumstances was the focus for an international workshop hosted at IMO (23 June). Addressing the Workshop on the Fair Treatment of Seafarers, organized by the International Transport Workers' Federation and Seafarers' Rights International, IMO Secretary-General Kitack Lim highlighted Guidelines on fair treatment of seafarers in the event of a maritime accident adopted by IMO in 2006. They were developed by a Joint Working Group with the International Labour Organization and apply to all instances where seafarers may be detained by public authorities in the event of a maritime accident.

The Guidelines aim to ensure that seafarers are treated fairly following a maritime accident and during any investigation and detention by public authorities and that detention is for no longer than necessary. During the workshop, participants from more than 50 States discussed guidance on implementing the Guidelines on the fair treatment of seafarers into national laws and highlighted the need to mutually cooperate to ensure the fair treatment of seafarers at a time when they are most vulnerable. The morning session was chaired by IMO's Fred Kenney. The afternoon session was chaired by Dr. Kofi Mbiah, Chair of the IMO Legal Committee.

Click for Mr. Kitack Lim's speech.

IMO Guidelines on fair treatment of seafarers 12



IMO MEETINGS FOR 2017

Marine Environment Protection Committee (MEPC) (03/07/2017 - 07/07/2017)

Technical Cooperation Committee (TCC) (17/07/2017 - 19/07/2017)

IMO NEWS MAGAZINE (Summer 2017)

IMO PUBLISHING Just Published: 2017 May/June 2017 Newsletter

RECENT SPEECHES BY IMO SECRETARY-GENERAL KITACK LIM

Launch of the GloMEEP Global Industry Alliance to Support Low-Carbon Shipping 29 June 2017

Consular Corps of London, Seminar on the Abandonment of Seafarers 22 June 2017

Maritime Safety Committee (MSC), 98th session, 7 – 16 June 2017 (Opening and Closing address)



UNITED NATIONS NEWS

Climate action 'a necessity and an opportunity,' says UN chief, urging world to rally behind Paris accord. UN News Centre [Online]. 30 May 2017. Available from:

http://www.un.org/apps/news/story.asp?NewsID=56865 Highlighting the seriousness of the impact of climate change on the planet and its inhabitants, United Nations Secretary-General António Guterres today called for sustained action to meet the global challenge and to ensure a peaceful and sustainable future for all.

US decision to withdraw from Paris climate accord a 'major disappointment' – UN. UN News Centre [Online]. 1 June 2017. Available from: http://www.un.org/apps/news/story.asp?NewsID=56882 The Spokesman for the United Nations Secretary-General today said the decision by the United States to withdraw from the Paris Agreement on climate change is a major disappointment for global efforts to reduce greenhouse gas emissions and promote global security.

Get outside, connect with the planet that sustains us, urges UN on World Environment Day. UN News Centre [Online]. 5 June 2017. Available from: http://www.un.org/apps/news/story.asp?NewsID=56902 With the theme of this year's World Environment Day - 'Connecting People to Nature' - aimed at highlighting the well-documented physical and mental health benefits of being in nature, the United Nations is today flagging the vast benefits of such engagement, from food security and improved health to reliable water supply and climatic stability.

UN Ocean Conference 'dream come true' for Caribbean nations such as Trinidad and Tobago. UN News Centre [Online]. 2 June 2017. Available from:

http://www.un.org/apps/news/story.asp?NewsID=56888

♣ Protecting the oceans is among the objectives of the Sustainable Development Goals (SDGs), the blueprint for a more just and equitable world adopted by the 193 Member States of the United Nations in September 2015.

Climate change and the world's oceans. *UN News Centre* [Online]. 5 June 2017. Available from: http://www.un.org/apps/news/story.asp?NewsID=56908 The vital link between oceans and climate change is among the issues at the forefront of discussions at the United Nations Ocean Conference taking place in New York from 5 to 9 June.

The Ocean Conference (5-9 June, 2017) - Media Coverage. *United Nations* [Online]. June 2017. Available from: http://www.un.org/en/conf/ocean/news.shtml The high-level United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development is being convened at United Nations Headquarters in New York from 5 to 9 June 2017, coinciding with World Oceans Day, to support the implementation of Sustainable Development Goal 14.



World Oceans Day 8 June. *United Nations* [Online]. June 2017. Available from: http://www.un.org/en/events/oceansday/ The oceans cover about two-thirds of the surface of the Earth and are the very foundations of life.

Record 'green' energy capacity added in 2016 as cost for renewables plunges – UN-backed report. UN News Centre [Online]. 7 June 2017. Available from: http://www.un.org/apps/news/story.asp?NewsID=56927 The world is now adding more green energy capacity each year than it adds in new capacity from all fossil fuels combined, a United Nations-backed report revealed today, showing that the "renewables train has already left the station" and those who ignore this will be left behind.

Working together, 'we can ensure that our oceans remain healthy as our blue home' – UN chief. UN News Centre [Online]. 8 June 2017. Available from:

Rising shipping costs set to lift global food import bill to more than \$1.3 trillion – UN agency. UN News Centre [Online]. 8 June 2017. Available from: http://www.un.org/apps/news/story.asp?NewsID=56933 Despite balanced global food commodity markets, shipping costs and import volumes will lift worldwide import costs to over \$1.3 trillion this year, according to the latest report from the United Nations agriculture agency.

UN Ocean Conference wraps up with actions to restore ocean health, protect marine life. UN News Centre [Online]. 9 June 2017. Available from: http://www.un.org/apps/news/story.asp?NewsID=56947 The first-ever United Nations summit on oceans today wrapped up with a global agreement to reverse the decline of the ocean's health, and more than 1,300 pledged actions for protecting the blue.

Kenya takes advantage of "neglected blue economy". *United Nations Radio* [Online].

15 June 2017. Available from: http://www.unmultimedia.org/radio/english/2017/06/kenya-has-neglected-blue-economy-opportunities-in-the-past-minister/ Kenya has "neglected" the "blue economy opportunities" presented by taking care of the ocean in the past, and must be a better steward in the future.

General Assembly approves creation of new UN Counter-Terrorism Office.

UN News Centre [Online]. 15 June 2017. Available from: http://www.un.org/apps/news/story.asp?NewsID=56984 The General Assembly today approved the establishment of a new United Nations office to help Member States implement the Organization's global counter-terrorism strategy.

War, violence, persecution push displacement to new unprecedented high. *United Nations High Commissioner for Refugees (UNHCR)* [Online]. 19 June 2017. Available from: http://www.unhcr.org/news/press/2017/6/5943ec594/war-violence-persecution-push-displacement-new-unprecedented-high.html UNHCR's new Global Trends report, the organization's major annual survey of the state of displacement, says that at the end of 2016 there were 65.6 million people forcibly displaced worldwide - some 300,000 more than a year earlier.



On World Refugee Day, UN urges support, solidarity for record number of displaced people. UN News Centre [Online]. 20 June 2017. Available from: http://www.un.org/apps/news/story.asp?NewsID=57013 With a record 65.6 million people last year forcibly uprooted from their homes by violence and persecution, United Nations Secretary-General António Guterres today called on the international community to provide support and solidarity.

With hidden lives vital to our own, 'seafarers matter,' says UN on International Day. UN News Centre [Online]. 25 June 2017. Available from: http://www.un.org/apps/news/story.asp?NewsID=57062 Highlighting the challenges faced by seafarers – women and men sailing and working aboard ships – the United Nations International Maritime Organization has called on everyone around the world to show appreciation for their vital contributions.

CASUALTIES

Two crewmen on 'murder ship' Sage Sagittarius met with foul play, coroner finds. By Louise Hall. Sydney Morning Herald (Australia) [Online]. 31 May 2017. Available from: http://www.smh.com.au/nsw/two-crewmen-on-murder-ship-sage-sagittarius-met-with-foul-play-coroner-finds-20170531-gwh03i.html Two experienced Filipino crewmen who died aboard a giant coal carrier within a six-week period met with foul play, a NSW coroner has ruled.

Coroner hands down 'death ship' findings. Sydney Morning Herald (Australia) [Online].
31 May 2017. Available from: http://www.smh.com.au/video/video-news/video-national-news/coroner-hands-down-death-ship-findings-20170531-4ukyf.html

The coroner has confirmed that there had been a double murder on board the Sage Sagittarius bulk carrier ship that was sailing to Australia.

Simulate Stellar Daisy incident to find answers, says ClassNK chairman. By Max Tingyao Lin. Lloyd's List [Online]. 2 June 2017. Available from: https://www.lloydslist.com/ll/sector/regulation/article557256.ece A proper investigation into the Stellar Daisy incident is achievable, according to ClassNK chairman Koichi Fujiwara, despite the apparent difficulty of carrying out such a task after the vessel was lost in high seas.

Bulk Carrier Hard Aground off Greece. World Maritime News [Online]. 8 June 2017. Available from: http://worldmaritimenews.com/archives/222233/bulk-carrier-hard-aground-off-greece/ The Bahamas-flagged bulk carrier *St. Gregory* ran aground on the south-eastern coast of Peloponnese, Greece in the morning hours of June 7.

Ship rams fishing boat off Kochi coast, 2 dead. By T Ramavarman and Disney Tom. *Times of India* [Online]. 12 June 2017. Available from: http://timesofindia.indiatimes.com/city/kochi/ship-rams-fishing-boat-off-kochi-coast-2-dead/articleshow/59101795.cms A fishing trawler capsized after it collided with a 25,000 tonne cargo ship reportedly heading for China from Israel off Kochi coast in the early hours of Sunday .

2 missing after Indonesian container ship capsizes in Malacca Strait. Channel News Asia [Online]. 14 June 2017. Available from: http://www.channelnewsasia.com/news/asiapacific/2-missing-after-indonesian-container-ship-capsizes-in-malacca-8945496 An Indonesian cargo ship, KM Avatar, capsized in the Straits of Malacca on Wednesday morning (Jun 14) with 15 crew members on board.



Accident Investigation Report 13/2017: Failure of mooring line on board LNG carrier Zarga with 1 person injured. UK Marine Accident Investigation Branch (MAIB) [Online].

15 June 2017. Available from: https://www.gov.uk/maib-reports/failure-of-mooring-line-on-board-lng-carrier-zarga-with-1-person-injured A deck officer suffered severe head injuries when he was struck by a parted HMPE mooring rope during a berthing operation at South Hook LNG terminal, Milford Haven on 2 May 2015.

Report Annexes

Panamax runs aground on Mississippi. By Dale Wainwright. *TradeWinds* [Online]. 15 June 2017. Available from: http://www.tradewindsnews.com/casualties/1283183/panamax-runs-aground-on-mississippi A Greek-owned bulker has run aground on the Mississippi, but the strategic US waterway is reportedly still open to shipping.

Oil spill off Johor coast points to tanker explosion, six Indonesian crew missing.

Malay Mail Online [Online]. 15 June 2017. Available from:

http://www.themalaymailonline.com/malaysia/article/oil-spill-off-johor-coast-points-to-tanker-explosion-six-indonesian-crew-mi Six crewmen were reported missing after an oil tanker was believed to have exploded and capsized at 4.6 nautical miles off Tanjung Pengelih near Pengerang, early today.

Navy collisions rare but provide lessons in their wake. By Bart Jansen. *USA Today* [Online]. 18 June 2017. Available from: https://www.usatoday.com/story/news/2017/06/18/navy-collisions-rare-but-provide-lessons-their-wake/102990892/ While investigators search for the cause of a fatal collision involving the *USS Fitzgerald* with a container ship near Japan, Navy experts said such accidents are "very rare" but could provide lessons for future sailors.

Vice Adm. Aucoin holds press conference in front of USS Fitzgerald.

United States Navy [Online]. 18 June 2017. Available from:

http://www.c7f.navy.mil/Media/News/Display/Article/1217832/vice-adm-aucoin-holds-press-conference-in-front-of-uss-fitzgerald/ USS FITZGERALD experienced extensive damage and flooding after a collision with the Filipino container ship at 0220 local time, 17 June, approx. 56 nm off the coast of Honshu, Japan.

How Could The Navy Destroyer Collision Happen? By Philip Ewing. *National Public Radio (US)* [Online]. 19 June 2017. Available from: http://www.npr.org/2017/06/19/533432845/how-could-the-navy-destroyer-collision-happen The headline shocked the close-knit world of the surface Navy: Seven sailors aboard the destroyer *USS Fitzgerald* were killed, and other crew members injured, when the warship collided with a cargo vessel off Japan.

Royal Malaysian Navy locates wreck of *MT Putri Sea*. *Malay Mail Online* [Online]. 18 June 2017. Available from: http://www.themalaymailonline.com/malaysia/article/royal-malaysian-navy-locates-wreck-of-mt-putri-sea The Royal Malaysian Navy (RMN) today managed to locate an underwater object, believed to be the wreck of *MT Putri Sea*, which sank approximately 4.6 nautical miles southwest of Tanjung Pengelih, near Pengerang, Johor early Thursday.

Japan Coast Guard says collision between U.S. warship and freighter wasn't reported for 55 minutes. *Japan Times* [Online]. 19 June 2017. Available from: http://www.japantimes.co.jp/news/2017/06/19/national/collision-u-s-warship-freighter-off-japan-wasnt-reported-55-minutes/ The Japan Coast Guard is investigating why it took nearly an hour for a deadly collision between a U.S. Navy destroyer and a containership to be reported.



Operation to find six crew of *MT Putri Sea* ends, says MMEA. *Malay Mail Online* [Online]. 19 June 2017. Available from: http://www.themalaymailonline.com/malaysia/article/operation-to-find-six-crew-of-mt-putri-sea-ends-says-mmea The search and rescue (SAR) operation for six crew of the tanker *MT Putri Sea* which went missing when it caught fire and sank near Pengerang, Thursday, was ended yesterday.

USS Fitzgerald crash site off Japan known for congested nighttime traffic. By Mari Yamaguchi. Japan Times [Online]. 22 June 2017. Available from: http://www.japantimes.co.jp/news/2017/06/22/national/uss-fitzgerald-crash-site-off-japan-known-congested-nighttime-traffic/. The site of a fatal collision between a U.S. Navy destroyer and a cargo ship off Japan's coast is notorious for congested sea traffic, particularly during the night when merchant ships are trying to reach Tokyo's port by daybreak.

Why the "Internet of Ships" didn't prevent the *USS Fitzgerald* collision.

By Sean Gallagher. *Ars Technica UK* [Online]. 21 June 2017. Available from: https://arstechnica.co.uk/information-technology/2017/06/uss-fitzgerald-collision-analysis-ais/
AIS broadcasts freighter's course to world, triggering conspiracy theories.

Investigators Believe USS Fitzgerald Crew Fought Flooding For An Hour Before Distress Call Reached Help. By Sam LaGrone. US Naval Institute News [Online]. 21 June 2017. Available from: https://news.usni.org/2017/06/21/investigators-believe-uss-fitzgerald-crew-fought-flooding-for-an-hour-before-distress-call-reached-help The crew of the guided-missile destroyer that was struck by a merchant ship on Friday off the coast of Japan fought to save the ship for an hour before the first calls went out for help, Japanese investigators now believe.

Dutch firm contracted to salvage vessel stranded off Kilifi Coast. By Philip Mwakio. Standard Digital (Kenya) [Online]. 27 June 2017. Available from: https://www.standardmedia.co.ke/article/2001244960/dutch-firm-contracted-to-salvage-vessel-stranded-off-kilifi-coast Salvage operations to re-float a Tuvalu-flagged chemical tanker MT Theresa Arctic that ran aground off the Kilifi Coast on June 20 were delayed by bad weather being experienced in the Indian Ocean.

Explosion heard from ship off the coast of Somalia, official says. By Abdiqani Hassan. Reuters [Online]. 27 June 2017. Available from: https://www.reuters.com/article/us-somalia-blast-ship-idUSKBN19I0D1 A huge explosion was heard from a ship off the coast of Somalia's Puntland region late on Monday and flames were seen rising from what might be a foreign vessel, an official in a nearby port said.

U.S. warship stayed on deadly collision course despite warning - container ship captain. By Tim Kelly. Reuters [Online]. 26 June 2017. Available from: https://www.reuters.com/article/us-usa-navy-asia-exclusive-idUSKBN19H13C A U.S. warship struck by a container vessel in Japanese waters failed to respond to warning signals or take evasive action before a collision that killed seven of its crew, according to a report of the incident by the Philippine cargo ship's captain.

Double grounding off Norway. By Gary Dixon. *TradeWinds* [Online]. 29 June 2017. Available from: http://www.tradewindsnews.com/casualties/1294397/double-grounding-off-norway A tanker and general cargoship have gone aground off Floro within a day of each other, local media reported.



ENVIRONMENT

Marine science funding to boost WA's blue economy. Government of Western Australia [Online]. 31 May 2017. Available from:

https://www.mediastatements.wa.gov.au/Pages/McGowan/2017/05/Marine-science-funding-to-boost-WAs-blue-economy.aspx Science Minister Dave Kelly today announced a \$1.29 million funding boost to help develop Western Australia into a global marine science hub.

The Business of Ocean Sustainable Development. By Paul Holthus, Founding President and CEO, World Ocean Council. International Institute for Sustainable Development (IISD) [Online]. 30 May 2017. Available from: http://sdg.iisd.org/commentary/guest-articles/the-business-of-ocean-sustainable-development/ As the UN Ocean Conference convenes, it's important to acknowledge that the future of the ocean and human prosperity are inextricably intertwined.

COP23 Presidency deeply disappointed with Trump's decision to withdraw from the Paris Agreement. By Frank Bainimarama, Fijian Prime Minister and Incoming President of COP23. COP23 [Online]. 1 June 2017. Available from: https://cop23.com.fj/statement-fijian-prime-minister-incoming-president-cop23/ Statement by the Fijian Prime Minister and Incoming President of COP23, Frank Bainimarama.

Governments, Partnerships Showcase over 400 Ocean Commitments. International Institute for Sustainable Development (IISD) [Online]. 1 June 2017. Available from: http://sdg.iisd.org/news/governments-partnerships-showcase-over-400-ocean-commitments/ In advance of the UN Ocean Conference, governments, UN entities and other stakeholders continued to register voluntary commitments and showcase work in support of the implementation of the Sustainable Development Goal on life below water (SDG 14).

EU and China to back climate deal at IMO. By Helen Kelly. *Lloyd's List* [Online]. 1 June 2017. Available from: https://www.lloydslist.com/ll/sector/regulation/article557137.ece Leaked document shows EU and China more convinced of climate strategy than ever and willing to ensure aviation and shipping contribute to domestic and international measures.

Sea, My Life: Protecting Oceans, Sustaining our Future. Global Environment Facility (GEF) [Online]. 4 June 2017. Available from: https://www.thegef.org/publications/sea-my-life-protecting-oceans-sustaining-our-future In the turquoise seas of the western Indian Ocean, a coelacanth drifts slowly and deliberately through underwater caves hidden deep beneath the volcanic islands of the Comoros archipelago.

Publication

Trump ditching Paris climate deal isn't the end of the world. By Catherine Brahic.

New Scientist [Online]. 2 June 2017. Available from:

https://www.newscientist.com/article/2133445-trump-ditching-paris-climate-deal-isnt-the-end-of-the-world/ Yesterday US president Donald Trump declared "we're getting out" of the Paris climate agreement, swiftly followed by a pledge to begin negotiations to re-enter it on "better" terms.



Mike Bloomberg doubles down to ensure America will fulfill the Paris Agreement. *Bloomberg* [Online]. 1 June 2017. Available from:

https://www.bloomberg.org/press/releases/bloomberg-philanthropies-commits-15-million-fill-budget-gap-left-trumps-revoking-us-support-un-climate-treaty/
United Nations Secretary-General's Special Envoy for Cities and Climate Change, announced a commitment of up to \$15 million to support the operations of the UN Framework Convention on Climate Change (UNFCCC) Executive Secretariat, including its work to help countries implement their commitments under the 2015 Paris Agreement on climate change.

Without safeguarding oceans, achieving the 2030 Sustainable Development Agenda will be impossible. *United Nations Development Programme (UNDP)* [Online]. 4 June 2017. Available from: http://www.goo.gl/uW6rrD UN Development Programme (UNDP) in collaboration with the Global Environment Facility (GEF) and other partners participated today in the Ocean March, with the launch of a new publication 'Sea, my Life: Protecting Oceans, Sustaining our Future'.

Financing for the Blue Economy in Small Island Developing States (SIDS).

By Madgy Martínez-Solimán, Director, Bureau for Policy and Programme Support, UNDP.

United Nations Development Programme (UNDP) [Online]. 5 June 2017. Available from:

http://www.goo.gl/yofz1r Magdy Martínez-Solimán's Statement at the UN Ocean Conference.

Large scale Marine Protected Areas: Lessons shared by the Pacific. Secretariat of the Pacific Regional Environment Programme (SPREP) [Online]. 7 June 2017. Available from: https://www.sprep.org/biodiversity-ecosystems-management/large-scale-marine-protected-areas-lessons-shared-by-the-pacific The Cook Islands event hosted in partnership with Conservation International - "Going to Scale in the Ocean: from large scale Marine Protected Areas to whole domain management: ridge to reef to ocean" at the UN Ocean Conference was a resounding success today.

The World Unites on June 8 for World Oceans Days. World Oceans Day [Online]. June 2017. Available from: http://www.worldoceansday.org/below-the-surface/the-world-unites-on-june-8-for-world-oceans-day World Oceans Day 2017 will be the biggest and best yet! For 2017, hundreds of celebrations are planned in over 100 countries – from the United Nations Oceans Conference being centered around World Oceans Day in New York...

Addressing ocean noise, ship strikes at UN this World Oceans Day. By Aurore Morin.

International Fund for Animal Welfare [Online]. 8 June 2017. Available from:

http://www.ifaw.org/united-states/news/addressing-ocean-noise-ship-strikes-un-world-oceans-day
This World Oceans Day, the United Nations has convened the Ocean Conference to drive forward ocean conservation over the coming decade, in line with the ocean-related targets in the Sustainable Development Goals.

New Hope for Sustainable Fishing and a Blue Economy for West Africa. World Bank [Online]. 8 June 2017. Available from: http://www.worldbank.org/en/news/feature/2017/06/07/new-hope-for-sustainable-fishing-and-a-blue-economy-for-west-africa A decade ago, it was already clear that the era of bountiful fishing

in West Africa's waters was in steep decline.



The Potential of the Blue Economy: Increasing Long-term Benefits of the Sustainable Use of Marine Resources for Small Island Developing States and Coastal Least Developed Countries. *World Bank* [Online]. 2017. Available from:

https://openknowledge.worldbank.org/bitstream/handle/10986/26843/115545.pdf

This report was drafted by a working group of United Nations entities, the World Bank, and other stakeholders to suggest a common understanding of the blue economy; to highlight the importance of such an approach, particularly for small island developing states and coastal least developed countries; to identify some of the key challenges its adoption poses; and to suggest some broad next steps that are called for in order to ensure its implementation.

UN Oceans Conference side-event showcases private sector solutions to worsening climate impacts. International Chamber of Commerce (ICC) [Online]. 7 June 2017.

Available from: https://iccwbo.org/media-wall/news-speeches/un-oceans-conference-side-event-showcases-private-sector-solutions-worsening-climate-impacts/ With climate change effects on the ocean having a growing impact on economies, food and water security, settlement patterns and human safety and security, the International Chamber of Commerce (ICC), is joining forces with the World Maritime University (WMU) and the Government of Sweden to host discussions on the role of the private sector in providing practical solutions to address the problem.

25 tipping points pushing our oceans past the point of no return. By Gregory S. Stone, Conservation International and Nishan Degnarain, Government of Mauritius.

World Economic Forum [Online]. 7 June 2017. Available from:

https://www.weforum.org/agenda/2017/06/25-ocean-tipping-points
Rapid economic growth over the past 50 years has increased humanity's ecological footprint by several orders of magnitude, crossing several boundaries that represent stable conditions for modern civilisation.

Millions of Africans depend on fishing. We must stop the plunder of their oceans. By Max Bankole Jarrett, Director-in-Charge, Africa Progress Panel. World Economic Forum [Online]. 7 June 2017. Available from: https://www.weforum.org/agenda/2017/06/all-hands-on-deck-why-africa-must-stop-plunder-of-its-fisheries Millions of African citizens depend on fishing for their jobs, food and income. For years, however, Africa's rich coastal waters have been plundered by foreign fleets, often fishing illegally.

Europe and China stand by climate action on aviation and shipping.

Transport & Environment [Online]. 8 June 2017. Available from: https://www.transportenvironment.org/news/europe-and-china-stand-climate-action-aviation-and-shipping The EU and China have reacted to US president Donald Trump's decision to withdraw the US from the Paris climate accord by agreeing to cooperate to ensure aviation and shipping play their part in tackling climate change.

We must tap 'blue economy' for progress. By Nancy Karigithu, Principal Secretary, Shipping and Maritime Affairs, Kenya. Daily Nation (Kenya) [Online]. 8 June 2017. Available from: http://www.nation.co.ke/oped/Opinion/marine-based-economic-development/440808-3962116-f5n613z/index.html Kenya's blue economy represents the latest global move towards marine-based economic development.

South Africa: Oceans Working for SA's Economy. *All Africa* [Online]. 8 June 2017. Available from: http://allafrica.com/stories/201706080946.html Speaking at the Oceans Conference in New York on Wednesday, Environmental Affairs Minister, Dr Edna Molewa said South Africa's grand plan to make the oceans work for economic growth has boosted job creation, in line with the objectives of the National Development Plan (NDP).



Abu Dhabi is taking vital steps to secure our maritime resources. By Razan Khalifa Al Mubarak, Secretary General, Environment Agency, Abu Dhabi. *The National (United Arab Emirates)* [Online]. 10 June 2017. Available from:

http://www.thenational.ae/opinion/comment/abu-dhabi-is-taking-vital-steps-to-secure-our-maritime-resources According to the United Nation's Food and Agriculture Organisation 2016 report on world fisheries and aquaculture, almost all global fish stocks are overexploited in some form.

Proposal for Intergovernmental Panel on Ocean Governance: Call for sustainability made by Yohei Sasakawa at first UN Ocean Conference. *Nippon Foundation* [Online]. 12 June 2017. Available from: http://www.nippon-foundation.or.jp/en/news/articles/2017/27.html
On June 9 (New York time), at a plenary meeting of the United Nations Ocean Conference, Yohei Sasakawa, Chairman of The Nippon Foundation, proposed that the United Nations establish an intergovernmental panel for comprehensive ocean governance.

Statement to support reaching ocean-related UN sustainable development goals. By Monika Stankiewicz, HELCOM Executive Secretary. Baltic Marine Environment Protection Commission (HELCOM) [Online]. 12 June 2017. Available from: http://www.helcom.fi/news/Pages/HELCOM-statement-to-support-reaching-ocean-related-UN-Sustainable-Development-Goals.aspx Statement at the high-level United Nations Conference to Support the Implementation of Sustainable Development Goal 14: Conserve and sustainably use the oceans, seas and marine resources for sustainable development, Plenary meeting 9 June 2017, New York.

New Blue BioTrade initiative announced at the UN Ocean Conference. *United Nations Conference on Trade and Development (UNCTAD)* [Online]. 12 June 2017. Available from: http://unctad.org/en/pages/newsdetails.aspx?OriginalVersionID=1502 The event was part of a long standing partnership between UNCTAD, CAF, CITES and International Oceans Institute (IOI) to foster ecologically, socially and economically sustainable biodiversity-based value chains, products and services.

Hazardous conditions caused by climate change put Arctic research study on ice.

By John Cotter. CTV News (Canada) [Online]. 12 June 2017. Available from:

http://www.ctvnews.ca/sci-tech/hazardous-conditions-caused-by-climate-change-put-arctic-research-study-on-ice-1.3454903 An Arctic climate change study has been cancelled because warming temperatures have filled the sea off northern Newfoundland with hazardous ice up to eight metres thick.

Sustainable use of oceans requires end to illegal fishing. Food and Agriculture Organization (FAO) [Online]. 8 June 2017. Available from: http://www.fao.org/news/story/en/item/892862/icode/. The world's oceans offer both challenges and solutions to the world's Sustainable Development Agenda, and managing them more carefully is essential for global food security today and tomorrow as well as the livelihoods of hundreds of millions of people, FAO Director-General José Graziano da Silva said today at the United Nations Ocean Conference.

German Maritime LNG Platform Signs Arctic Commitment Against HFO. Ship & Bunker [Online]. 15 June 2017. Available from: https://shipandbunker.com/news/world/615601-german-maritime-Ing-platform-signs-arctic-commitment-against-hfo The Clean Arctic Alliance Wednesday announced that the German Maritime LNG Platform has signed the Arctic Commitment, which calls for a ban on the use of HFO in Arctic shipping.



How a remote Indonesian island community is reclaiming its fishing heritage by restoring ruined coral reefs. By Adam Cruise and Leïla Ezzat. *National Geographic* [Online]. 14 June 2017. Available from: http://voices.nationalgeographic.com/2017/06/14/how-a-remote-indonesian-island-community-is-reclaiming-its-fishing-heritage-by-restoring-ruined-coral-reefs/
Along with the spectre of global warming and ocean acidification, decades of dynamite fishing, the use of chemicals, sewage and agricultural run-off, plastic debris and poor or inactive governance are decimating coral reefs within the world's epicentre of marine biodiversity known as the Coral Triangle.

Development of oceans needs to bring economic, environmental and social benefits to Caribbean people. *INews Cayman (Cayman Islands)* [Online]. 14 June 2017. Available from: http://www.ieyenews.com/wordpress/development-of-oceans-needs-to-bring-economic-environmental-and-social-benefits-to-caribbean-people/ The Caribbean Natural Resources Institute (CANARI) has recognised the potential for coastal and marine resources to be sustainably used to bring economic benefits to the region.

Achieving sustainability towards ocean protection. *Green4Sea* [Online]. 15 June 2017. Available from: http://www.green4sea.com/achieving-sustainability-towards-ocean-protection/ On the occasion of UN Ocean Conference, held on 5-9 June, the International Chamber of Shipping issued a report, focusing on the multi-faced commitments of the shipping industry for the implementation of a sustainable strategy towards the ocean.

The seafood industry must pull our oceans back from the brink. By Henrik Österblom, Knut Nesse, and Johan Rockström. World Economic Forum [Online]. 15 June 2017. Available from: https://www.weforum.org/agenda/2017/06/seafood-business-for-ocean-stewardship The phrases a drop in the ocean or plenty more fish in the sea expose a worldview of the oceans as an infinite, resilient resource.

Protecting Blue Whales and Blue Skies Program Expands to San Francisco Bay Area. Santa Barbara County Air Pollution Control District (US) [Online]. 15 June 2017. Available from: https://www.ourair.org/061517-news/ In an initiative to cut air pollution and protect whales in the Santa Barbara Channel region, the partners announced today that the Vessel Speed Reduction (VSR) voluntary incentive program will for the first time include the San Francisco Bay Area.

Climate Change Threatening Future Panama Canal Expansion. Latin American Herald Tribune [Online]. 18 June 2017. Available from: http://www.laht.com/article.asp?ArticleId=2438445&CategoryId=23558 The projections prepared by the Panama Canal regarding international trade demonstrate the need, within 15 years or less, for a second expansion of the waterway, but climate change appears to present an obstacle to those plans due to its effect on water sources.

3 ways to reduce climate change impact on oceans. *International Chamber of Commerce* (*ICC*) [Online]. 21 June 2017. Available from: https://iccwbo.org/media-wall/news-speeches/3-ways-reduce-climate-change-impact-oceans/ An official side event of the conference, hosted by International Chamber of Commerce (ICC), the World Maritime University (WMU) and the Government of Sweden, brought together representatives from the private sector, ocean leadership nations, and the education and capacity-building sector to highlight and discuss practical approaches to address the ways in which the private sector can fight climate change affecting the ocean.



Ocean Conference Branded Game Changer. Fiji Sun Online [Online]. 23 June 2017. Available from: http://fijisun.com.fj/2017/06/23/ocean-conference-branded-game-changer/ Jeremy Hills, Director of The University of the South Pacific's (USP) Institute of Marine Resources has summed up the Ocean Conference as a "game changer" which, tried to recreate a new trajectory of the way people dealt with the oceans.

Protecting Our Seas – China's Efforts to Protect the Seas. By Lina Gong.

S Rajaratnam School of International Studies (Singapore) [Online]. 22 June 2017.

Available from: http://www.rsis.edu.sg/rsis-publication/nts/co17123-protecting-our-seas-chinas-efforts-to-protect-the-seas/ This issue is critical for China given its growing challenges from marine environmental degradation.

Great Barrier Reef valued at \$56 billion by Deloitte economists. By Adam Gartrell.

Sydney Morning Herald (Australia) [Online]. 26 June 2017. Available from:

http://www.smh.com.au/environment/great-barrier-reef-valued-at-56-billion-by-deloitte-economists-20170625-gwy2yj.html

That's the "total asset value" according to a new Deloitte Access Economics report that calculates the World Heritage site's full economic, social and iconic brand value for the first time.

At what price? The economic, social and icon value of the Great Barrier Reef. Deloitte [Online]. June 2017. Available from: https://www2.deloitte.com/content/dam/Deloitte/au/Documents/Economics/deloitte-au-economics-great-barrier-reef-230617.pdf There is no doubt that the Great Barrier Reef holds significant value for Australia, Australians and the global community.

Assessment: World Heritage coral reefs likely to disappear by 2100 unless CO2 emissions drastically reduce. UNESCO [Online]. 23 June 2017. Available from: http://whc.unesco.org/en/news/1676/ Soaring ocean temperatures in the past three years have subjected 21 of 29 World Heritage reefs to severe and/or repeated heat stress, and caused some of the worst bleaching ever observed at iconic sites ...

Green Climate Fund urged to embrace development links. By Matoe Phakathi.

Climate Home [Online]. 29 June 2017. Available from:

http://www.climatechangenews.com/2017/06/29/green-climate-fund-urged-embrace-development-links/ A letter signed by more than 80 NGOs urges the UN's flagship climate finance initiative not to reject bids simply because they look like traditional development projects.

Researchers attribute deluge of alien fish to 'globalised' shipping routes.

By Jeanelle Mifsud. Malta Today [Online]. 28 June 2017. Available from:
http://www.maltatoday.com.mt/environment/nature/78498/researchers attribute deluge of alien fish to globalised shipping routes#.WV5ZyU1vRzN Researchers behind the Spot the Alien Fish campaign who have long observed an influx of non-indigenous fish in Maltese and Mediterranean waters, have held several activities, including the shipping industry, responsible for the growing phenomenon.



ENVIRONMENTAL POLLUTION

Ennore coast tarred 4 months after oil spill. By U. Tejonmayami. *Times of India* [Online]. 28 May 2017. Available from: http://timesofindia.indiatimes.com/city/chennai/ennore-coast-tarred-4-months-after-oil-spill/articleshow/58877058.cms Four months after two ships collided off Ennore port, spilling a large quantity of furnace oil, a portion of the coast continues to be slicked with the sludge.

Venice authorities lament lack of cruise ships as residents and Unesco fight for the city's future. By Jane Archer. *The Telegraph* [Online]. 1 June 2017. Available from: http://www.telegraph.co.uk/travel/cruises/articles/cruise-ships-and-venice-what-does-it-all-mean-for-the-city/ Pressure is mounting for a solution to the on-going dispute over whether cruise ships should be allowed into Venice as more cruise lines pull out of the city.

Fishermen in Tamil Nadu's Ennore despair as oil spill wrecks livelihoods. By Samuel Merigala and Aihik Sur. New Indian Express [Online]. 5 June 2017. Available from: http://www.newindianexpress.com/states/tamil-nadu/2017/jun/05/fishermen-in-tamil-nadus-ennore-despair-as-oil-spill-wrecks-livelihoods-1613145.html Four-months after three coastal villages bore the brunt of the Ennore oil spill, fishermen there now have to make do with vastly reduced livelihoods.

FSM and Marshalls urge nuclear clean-up. Radio New Zealand [Online]. 7 June 2017. Available from: http://www.radionz.co.nz/international/pacific-news/332467/fsm-and-marshalls-urge-nuclear-clean-up A number of Pacific leaders have used the UN Oceans Conference to bring global attention to nuclear contamination and World War Two wrecks that have become environment hazards.

BP positive on 2020 product availability and compliance, expects role for scrubbing. Hellenic Shipping News [Online]. 8 June 2017. Available from: http://www.hellenicshippingnews.com/bp-positive-on-2020-product-availability-and-compliance-expects-role-for-scrubbing/ Oil major BP thinks the rate of compliance with the 0.50% sulphur limit in 2020 will be high and that the global refining system has capacity to supply the required fuels, according to a presentation given at a joint forum organised by IBIA and the UK Chamber of Shipping in London last month.

Norway to carry out major oil spill response drill. By Bob Jaques. Seatrade Maritime News [Online]. 8 June 2017. Available from: http://www.seatrade-maritime.com/news/europe/norway-to-carry-out-major-oil-spill-response-drill.html A massive oil and chemical spill protection exercise involving more than 300 people and 30 vessels from different Nordic countries is due to be carried out in Norway in late September.

Kuehne + Nagel [Online]. 7 June 2017. Available from: https://www.kn-portal.com/about_us/media_relations/news/show/?tx_knnews_pi1%5Buid%5D=5183
Kuehne + Nagel has expanded its sustainability offering for global seafreight services: As of May 2017, the total amount of CO2 emissions generated by seafreight ship-ments is printed on each invoice assisting shippers to identify their carbon footprint from transport operations.

Chemical and oil tanker collision exercise to take place. *Tanker Operator* [Online]. 9 June 2017. Available from: http://www.tankeroperator.com/news/chemical-and-oil-tanker-collision-exercise-to-take-place/8734.aspx In a joint project between the Nordic countries and co-funded by the European Union, an oil and chemical protection exercise is to take place in and around Langesund, Norway on 25th-29th September.



Big Ships Account for 80 Percent of Shipping's CO2. By Paul Benecki. Maritime Executive [Online]. 13 June 2017. Available from: http://www.maritime-executive.com/article/big-ships-account-for-most-of-shippings-co2 At Nor-Shipping 2017, researchers with DNV GL released a study that points to the difficulty of reducing the industry's CO2 output below current levels.

Microbe mystery solved: What happened to the *Deepwater Horizon* oil plume. *Phys Org* [Online]. 26 June 2017. Available from: https://phys.org/news/2017-06-microbe-mystery-deepwater-horizon-oil.html The *Deepwater Horizon* oil spill in the Gulf of Mexico in 2010 is one of the most studied spills in history, yet scientists haven't agreed on the role of microbes in eating up the oil.

UK takes centre stage in global marine protection. *UK* Government [Online]. 26 June 2017. Available from: https://www.gov.uk/government/news/uk-takes-centre-stage-in-global-marine-protection Environment Minister Thérèse Coffey has today set out how the UK continues to play a leading role in protecting the world's oceans and turning the tide on marine litter.

Ship on a mission to save oceans. By Leopold Obi. Daily Nation (Kenya) [Online]. 27 June 2017. Available from: http://www.nation.co.ke/lifestyle/DN2/Ship-on-a-mission-to-save-oceans/957860-3989862-w37wnu/index.html Climate change, over-fishing and plastic pollution are among the worst challenges the world's oceans are grappling with today.

T&T to reduce shipping emissions. By Anna-Lisa Paul. *Guardian (Trinidad and Tobago)* [Online]. 28 June 2017. Available from: http://www.guardian.co.tt/business/2017-06-28/tt-reduce-shipping-emissions In a bid to promote energy efficient shipping and reduce air pollution from ships within certain regions, the International Maritime Organisation (IMO) has embarked on a four-year project to construct five technology centres at various locations across the globe.

HEALTH AND SAFETY

Chief engineer drowned after falling overboard from pilot ladder. Safety 4 Sea [Online]. 14 June 2017. Available from: http://www.safety4sea.com/chief-engineer-drowned-falling-overboard-pilot-ladder/ The Hong-Kong Merchant Shipping issued a Marine Note, informing about an accident that happened onboard a Hong Kong-registered ship, when a chief engineer fell into the sea and drowned, during disembarking.

Nautilus in talks to secure fairer trade and seafarer living and working conditions. Lloyd's List [Online]. 14 June 2017. Available from: https://nautilusint.org/en/what-we-say/nautilus-in-talks-to-secure-fairer-trade-and-seafarer-living-and-working-conditions/ Nautilus International's work to promote an accreditation system to improve seafarers' living and working conditions got a further green light at recent International Transport Workers' Federation (ITF) meetings in South Africa.

Helping seafarers battle the mental scars of piracy. By Gary Peters. Ship-Technology.Com [Online]. 7 June 2017. Available from: http://www.ship-technology.com/features/featurehelping-seafarers-battle-the-mental-scars-of-piracy-5833836/. The maritime sector has been rocked in recent months by a spike in piracy.



Tech outfit adds 'medical wearables' to tracking seafarers' health. By Hal Brown. Lloyd's List [Online]. 21 June 2017. Available from: https://lloydslist.maritimeintelligence.informa.com/LL108784/Tech-outfit-adds-medical-wearables-to-tracking-seafarers-health New medical methods designed to improve seafarer health and disrupt shipping's conservative nature.

IMO

Trump's decision to pull out of the Paris Agreement must not derail IMO's emissions drive. By Sam Chambers. Splash 24/7 [Online]. 2 June 2017. Available from: http://splash247.com/trumps-decision-pull-paris-agreement-must-not-derail-imos-emissions-drive/. A host of senior shipping officials and NGOs have reacted as one to urge the International Maritime Organization to continue its efforts to cut emissions, despite President Donald Trump's decision on Thursday to pull the US out of the UN's Paris Agreement on climate change.

Does US quitting Paris Agreement impact IMO climate talks? Hellenic Shipping News [Online]. 2 June 2017. Available from: http://www.hellenicshippingnews.com/does-us-quitting-paris-agreement-impact-imo-climate-talks/ The deal – signed off in December 2015 by 195 countries – aims to limit global warming to well below 2C above pre industrial levels, a ceiling deemed dangerous by scientists.

Trump Withdrawing US From Paris Climate Agreement "Puts Even Greater Pressure" on Shipping, IMO to Act on Emissions. Ship & Bunker [Online]. 1 June 2017. Available from: https://shipandbunker.com/news/world/163400-trump-withdrawing-us-from-paris-climate-agreement-puts-even-greater-pressure-on-shipping-imo-to-act-on-emissions U.S. President Donald Trump today announced his country will withdraw from the Paris climate change agreement, and while several maritime focused NGOs have been quick to criticize the move, several industry observers have said the decision only ups the pressure on IMO to deliver on its promises to reduce global emissions from Shipping.

Bulc optimistic about ambitious IMO climate strategy. By Mette Mandrup. ShippingWatch [Online]. 9 June 2017. Available from: http://shippingwatch.com/secure/carriers/article9639434.ece IMO efforts to lay down a joint

strategy to reduce greenhouse gas emissions from shipping are moving in the right direction, says EU Commissioner for Transport, Violeta Bulc, calling for a joint stance at the next meeting of the IMO's Marine Environment Protection Committee.

IMO Needs to Finalise Ballast Water Implementation Dates. *International Chamber of Shipping (ICS)* [Online]. 19 June 2017. Available from: http://www.ics-shipping.org/news/press-releases/2017/06/19/imo-needs-to-finalise-ballast-water-implementation-dates The global shipping industry – as represented by the International Chamber of Shipping (ICS) – has urged its global regulator, the International Maritime Organization (IMO), to back a carefully crafted proposal, from a broad coalition of governments, concerning the implementation dates for installing complicated new ballast water treatment systems.

IMO's hesitance in ballast water takes toll on suppliers. By Louise Vogdrup-Schmidt and Søren Pico. ShippingWatch [Online]. 19 June 2017. Available from: http://shippingwatch.com/secure/carriers/article9662569.ece At the meeting of the IMO's Marine Environment Protection Committee (MEPC), the plan is to determine when shipowners must install ballast water management systems.



Shipping needs greater enforcement of current regulations. By Glynn Thomas. *Splash 24/7* [Online]. 20 June 2017. Available from: http://splash247.com/shipping-needs-greater-enforcement-current-regulations/ Glynn Thomas, currently serving as a first engineer, suggests the IMO should focus on nailing down existing rules rather than pursuing new edicts.

Dr Kofi Mbiah bows out after 35 years of service. News Ghana [Online]. 23 June 2017. Available from: https://www.newsghana.com.gh/dr-kofi-kofi-mbiah-bows-out-after-35-years-of-service/ After just weeks of stepping down as the Chairman of the International Maritime Organization's (IMO) Legal Committee in London, Dr. Kofi Mbiah, has gracefully bowed out as the Chief Executive of the Ghana Shippers' Authority after 35 years of service to the Authority and to mother Ghana.

LAW AND POLICY

Buhari's reforms change NIMASA's fortune. By Olukorede Yishau. *The Nation (Nigeria)* [Online]. 1 June 2017. Available from: http://thenationonlineng.net/buharis-reforms-change-nimasas-fortune/ When President Muhammadu Buhari took over two years ago, the Nigerian Maritime Administration and Safety Agency (NIMASA) was one of the agencies he was determined to change for good.

A Call for a Hippocratic Oath on Protecting the World's Oceans. By Diane Toomey. Yale Environment 360 [Online]. 1 June 2017. Available from: http://e360.yale.edu/features/a-call-for-a-code-of-conduct-in-the-creation-of-marine-protected-areas In a Yale Environment 360 interview, scientist Nathan Bennett explains why he and other marine experts are calling for a a code of conduct for ocean conservation to ensure that local communities benefit from newly created marine reserves.

ICJ adjudication of Guyana-Venezuela border issue draws nearer. By Odeen Ishmael. Caribbean News Now [Online]. 1 June 2017. Available from: http://www.caribbeannewsnow.com/headline-Commentary%3A-ICJ-adjudication-of-Guyana-Venezuela-border-issue-draws-nearer-34611.html On February 27 this year, UN Secretary-General Antonio Guterres announced the appointment of Dag Halvor Nylander of Norway as his personal representative to help find a solution to the border controversy between Guyana and Venezuela.

Nigerian trade minister reveals \$186m to tackle piracy. By Linton Nightingale. Lloyd's List [Online]. 1 June 2017. Available from: https://www.lloydslist.com/ll/sector/ship-operations/article557100.ece Nigeria has pledged \$186m to combat piracy in a bid to safeguard its waters and vessels moving in and out of the country, according to the Nigerian Trade Minister CR Amaechi.

Kleverlaan: Protecting marine environment important. By Litia Cava. Fiji Times [Online]. 31 May 2017. Available from: http://www.fijitimes.com/story.aspx?id=402550& Fiji will be able to identify areas of the sea which are at risk and protect it after a Particularly Sensitive Sea Areas (PSSA) workshop that commenced in Suva yesterday.

Environment MEPs strengthen EU's key climate law. *Transport & Environment* [Online]. 30 May 2017. Available from: https://www.transportenvironment.org/press/environment-meps-strengthen-eu%E2%80%99s-key-climate-law MEPs today voted to increase the ambition of the EU's most powerful climate law, the proposed Effort Sharing Regulation (ESR).



UN Ocean Conference: can the law protect our ocean ecosystems? By Elizabeth A Kirk, Professor, International Environmental Law, Nottingham Trent University. *The Ecologist* [Online]. 1 June 2017. Available from:

http://www.theecologist.org/News/news_analysis/2988978/un_ocean_conference_can_the_law_protect_our_ocean_ecosystems.html With the UN Ocean Conference beginning in New York next week, Elizabeth A Kirk asks: can we devise a legal system that promotes the ecological resilience of the oceans?

Several Regulations to be promulgated under the Merchant Shipping Act 2007.

Government of Mauritius [Online]. 2 June 2017. Available from: http://www.govmu.org/English/News/Pages/Several-Regulations-to-be-promulgated-under-the-Merchant-Shipping-Act-2007.aspx The Minister of Ocean Economy, Marine Resources, Fisheries and Shipping would promulgate several regulations under the Merchant Shipping Act 2007 for the effective and efficient management of merchant vessels.

Comprehensive Maritime Transport Policy. Government of South Africa [Online]. May 2017. Available from: http://www.transport.gov.za/LinkClick.aspx?fileticket=aFpf65-YBb8%3d&tabid=331&mid=1786 This Comprehensive Maritime Transport Policy serves as the embodiment of Government's commitment to the growth, development and transformation of South Africa's maritime transport sector.

HELCOM statement at the Ocean Conference highlights regional and cross-sectoral cooperation. Baltic Marine Environment Protection Commission (HELCOM) [Online]. 6 June 2017. Available from: http://www.helcom.fi/news/Pages/HELCOM-statement-at-the-Ocean-Conference-highlights-regional-and-cross-sectoral-cooperation.aspx A particular challenge in restoring the marine environment of the Baltic Sea is that the Baltic Sea is isolated from other sea areas and its catchment is substantially larger than the sea itself.

Princess Cruises' 'magic pipe': a warning for the cruise industry. By Rebecca Moore.

Passenger Ship Technology [Online]. 5 June 2017. Available from:

http://www.passengership.info/news/view,princess-cruises-magic-pipe-a-warning-for-the-cruise-industry 47946.htm

Magic pipes hit the headlines when Princess Cruises was sentenced to pay a 40 million us dollar penalty related to illegal dumping overboard of oil-contaminated waste and falsification of official logs to conceal the discharges.

Entry restrictions to vessels flying Qatar flag, vessels destined to or arrival from Qatar ports. Port of Fujairah (UAE) [Online]. 5 June 2017. Available from:

http://fujairahport.ae/files/NTM224.pdf As part of the decision taken by the United Arab Emirates to break-off all the diplomatic relationship with Qatar, vessels flying flags of Qatar or vessels destined to or arrival from Qatar ports are not allowed to call Port of Fujairah and Fujairah Offshore Anchorage regardless their nature of call till further notice.

Saudi, UAE ports bar ships flying Qatari flag after ties cut. By Rania El Gamal. Reuters [Online]. 5 June 2017. Available from: http://www.reuters.com/article/gulf-qatar-shipping-idUSL8N1J23EL Ports in Saudi Arabia and the United Arab Emirates' barred ships flying Qatari flags after the two countries broke off diplomatic ties with Doha, in a move that raised fears of disruption to oil and gas shipments from the Gulf OPEC member.



Inaugural Meeting of the Arctic Shipping Best Practices Information Forum.

Protection of the Arctic Marine Environment (PAME) [Online]. 6 June 2017. Available from: http://www.pame.is/index.php/shortcode/blog/item/60-inaugural-meeting-of-the-arctic-shipping-best-practices-information-forum The Forum has been established by the eight Arctic States (Canada, the Kingdom of Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden and the United States) to help raise awareness and to promote the effective implementation of the International Maritime Organization's International Code for Ships Operating in Polar Waters (Polar Code), a mandatory international framework that increases the safety of ship operations and mitigate the impact on the people and the vulnerable environment in Polar waters.

FRONTEX, EFCA and EMSA present results of pilot project "Creation of a European Coastguard Function". Frontex European Border and Coast Guard Agency [Online].

2 June 2017. Available from: http://frontex.europa.eu/news/frontex-efca-and-emsa-present-results-of-pilot-project-creation-of-a-european-coastguard-function-51Rnmv Today, the Closing Workshop of the pilot project "Creation of a European coastguard function" gathered some 110 participants from various European and national entities at the premises of the European Maritime Safety Agency (EMSA) in Lisbon.

Asian nations make plastic oceans promise. By Roger Harrabin. BBC News [Online]. 8 June 2017. Available from: http://www.bbc.co.uk/news/science-environment-40195664 At a UN oceans summit, delegates from China, Thailand, Indonesia and the Philippines said they would work to keep plastics out of the seas.

E.U. Ministers Agree Maritime Transport Policy. Maritime Executive [Online]. 9 June 2017. Available from: http://www.maritime-executive.com/article/eu-ministers-agree-maritime-transport-policy E.U. Ministers of Transportation sent a strong signal of continued support for the European maritime sector at a meeting of the Council of Ministers this week and adopted their priorities for the maritime transportation policy until 2020.

EU's maritime transport policy up to 2020. Council of the European Union [Online].

8 June 2017. Available from: http://www.consilium.europa.eu/en/press/press-releases/2017/06/08-tte-maritime-transport/ Competitiveness, decarbonisation and digitalisation are the guiding principles that will serve as a basis for the EU's maritime transport policy up to 2020 and beyond. http://www.consilium.europa.eu/en/press/press-releases/2017/06/08-tte-maritime-transport/ Competitiveness, decarbonisation and digitalisation are the guiding principles that will serve as a basis for the EU's maritime transport policy until 2020

Shipowners welcome Council conclusions on EU maritime transport policy. European Community Shipowners' Associations (ECSA) [Online]. 8 June 2017. Available from: http://www.ecsa.eu/9-latest-news/311-shipowners-welcome-council-conclusions-on-eu-maritime-transport-policy European Transport Ministers adopted today conclusions on the priorities for the EU's maritime transport policy until 2020.

China and Panama establish diplomatic relations. *Government of China* [Online]. 14 June 2017. Available from: https://eng.yidaiyilu.gov.cn/home/rolling/16094.htm China and Panama decided to establish formal relations on June 13, according to a joint statement released after a meeting between their foreign ministers in Beijing.

New Panama - China relations will strengthen maritime sector. By Michele Labrut. Seatrade Maritime News [Online]. 14 June 2017. Available from: http://www.seatrade-maritime.com/news/americas/new-panama-china-relations-will-strengthen-maritime-sector.html In a surprise joint statement released on Monday evening Panama said that Panama and China were recognising each other and would be establishing ambassadorial-level relations the same day.



Jamaica renews commitment toward International Labour Standards. *International Labour Organization (ILO)* [Online]. 13 June 2017. Available from: http://ilo.org/global/standards/WCMS_557955/lang--en/index.htm On 13 June 2017, Jamaica deposited with the Director General of the ILO the instruments of ratification of the Maritime Labour Convention, 2006, as amended (MLC, 2006) as well as of the Protocol of 2014 to the Forced Labour Convention, 1930.

Indonesia ratifies the Maritime Labour Convention, 2006, as amended (MLC, 2006). International Labour Organization (ILO) [Online]. 12 June 2017. Available from: http://ilo.org/global/standards/maritime-labour-convention/news/WCMS 557768/lang-en/index.htm On 12 June 2017, Indonesia deposited the instrument of ratification of the Maritime Labour Convention, 2006, as amended (MLC, 2006) with the International Labour Office.

Mariners lament over-lapping functions of maritime agencies. By Godwin Oritse. Vanguard (Nigeria) [Online]. 15 June 2017. Available from: http://www.vanguardngr.com/2017/06/mariners-lament-lapping-functions-maritime-agencies/
The Nigerian Association of Master Mariners, (NAMM), has expressed concern over the overlapping functions of the various maritime agencies in Nigeria, adding that the development portends absence of strategic maritime policy.

Neeru Chadha becomes first Indian woman to become member of ITLOS. Indian Express [Online]. 15 June 2017. Available from: http://indianexpress.com/article/india/neeru-chadha-becomes-first-indian-woman-to-become-member-of-itlos-4704991/. In a significant victory for India at the UN, international law expert Neeru Chadha has won a crucial election to a top UN judicial body that deals with disputes related to the law of the sea, becoming the first Indian woman to be appointed as a judge at the tribunal.

Thai envoy elected to Law of the Sea tribunal. Bangkok Post [Online]. 15 June 2017. Available from: http://www.bangkokpost.com/news/general/1269058/thai-envoy-elected-to-law-of-the-sea-tribunal Thai ambassador to Russia Kriangsak Kittichaisaree has been elected to a nine-year term as a judge of the UN's International Tribunal for the Law of the Sea, the Foreign Affairs Ministry announced.

New DOJ policy could affect MARPOL plea deal payments. *Marine Log* [Online]. 13 June 2017. Available from:

http://www.marinelog.com/index.php?option=com_k2&view=item&id=26336:new-doj-policy-could-affect-marpol-plea-deal-payments&Itemid=257 Law firm Winston & Strawn says that the Department of Justice (DOJ) has issued a new policy that may curtail the long-standing practice of requiring vessel owners and operators facing charges under the Act to Prevent Pollution from Ships (APPS) and MARPOL to make "Community Service Payments" to non profit groups such as the National Fish and Wildlife Foundation as part of their plea agreements.

Election of seven members of the International Tribunal for the Law of the Sea.

International Tribunal for the Law of the Sea (ITLOS) [Online]. 15 June 2017. Available from:
https://www.itlos.org/fileadmin/itlos/documents/press releases english/PR 260 EN.pdf

On Wednesday, 14 June 2017 seven Members of the International Tribunal for the Law of the Sea were elected at the twenty-seventh Meeting of States Parties to the United Nations Convention on the Law of the Sea, in session at the United Nations Headquarters in New York.



Sweden passes climate law to become carbon neutral by 2045. By Megan Darby. *Climate Home* [Online]. 15 June 2017. Available from:

http://www.climatechangenews.com/2017/06/15/sweden-passes-climate-law-become-carbon-neutral-2045/ Legislation makes Sweden the first country to significantly upgrade its ambition since the world agreed a climate deal in Paris, in contrast with US backsliding.

The climate policy framework. *Government of Sweden* [Online]. 15 June 2017. Available from: http://www.government.se/articles/2017/06/the-climate-policy-framework/ On Thursday 15 June, the Riksdag took a decision on the introduction of a climate policy framework for Sweden containing new climate goals, a Climate Act and plans for a climate policy council.

Statement by Ambassador Wu Haitao at the 27th Meeting of States Parties to the United Nations Convention on the Law of the Sea under Agenda Item: Report of the Secretary General. Government of China [Online]. 15 June 2017. Available from: http://www.china-un.org/eng/chinaandun/legalaffairs/t1471070.htm The Chinese delegation would like to thank the Secretary General for his report submitted pursuant to Article 319 of the United Nations Convention on the Law of the Sea (UNCLOS). Our thanks also go to the Secretariat for their hard work.

Two International Shipping Companies Pay \$1.9 Million for Covering Up Vessel Pollution. US Department of Justice [Online]. 20 June 2017. Available from: https://www.justice.gov/opa/pr/two-international-shipping-companies-pay-19-million-covering-vessel-pollution Two shipping companies based in Egypt and Singapore pleaded guilty today in federal court in Beaumont, Texas, to violating the Act to Prevent Pollution from Ships (APPS) and obstruction of justice for covering up the illegal dumping of oil-contaminated bilge water and garbage from one of their ships into the sea.

Illegal foreign fishing and lack of reporting threaten Sierra Leone's fisheries sector. University of British Columbia (Canada) [Online]. 20 June 2017. Available from: http://oceans.ubc.ca/2017/06/20/illegal-foreign-fishing-and-lack-of-reporting-threaten-sierra-leones-fisheries-sector/ Illegal fishing accounts for about 30 per cent of catches by industrial foreign fleets in Sierra Leone, says a new study published in Marine Policy.

Maritime transport policy important to national economic growth - Dr. Dukuku Peterside... As IMO pledges support in policy framework drafting. Nigerian Maritime Administration and Safety Agency (NIMASA) [Online]. 19 June 2017. Available from: http://www.goo.gl/FD1w9j The Director General of the Nigerian Maritime Administration and Safety Agency (NIMASA), Dr. Dakuku Peterside, has stated that Nigeria is in dire need of a Maritime Transport policy which will complement the existing National Transport Policy and advance the country's global maritime trade.

EU's external fishing fleet to become the most transparent, accountable and sustainable globally following legal reform. Oceana [Online]. 21 June 2017. Available from: http://eu.oceana.org/en/press-center/press-releases/eus-external-fishing-fleet-become-most-transparent-accountable-and One third of total European catches are made on the high seas and in the waters of third countries.

New EU rules on sustainable and transparent external fishing activities.

Council of the European Union [Online]. 20 June 2017. Available from: http://www.consilium.europa.eu/en/press/press-releases/2017/06/20-transparent-external-fishing-activities/ On 20 June 2017 the Council reached a political agreement with the European Parliament on new rules for the sustainable management of external fishing fleets.



Towards an implementation strategy for the sustainable blue growth agenda for the Baltic Sea region. European Commission [Online]. 9 June 2017. Available from: https://publications.europa.eu/en/publication-detail/-/publication/60adf799-4f19-11e7-a5ca-01aa75ed71a1 This report, "Towards an implementation strategy for the Sustainable Blue Growth Agenda for the Baltic Sea Region," presents the results of a systematic stakeholder dialogue in the region. Initiated by the European Commission in September 2016, the aim of the dialogue was to identify and discuss in greater depth the processes necessary to realise the Baltic Blue Growth Agenda in the coming years.

Thome Group response to Department of Justice ruling on the *ETC Mena*. Thome Group [Online]. 21 June 2017. Available from: http://www.thome.com.sg/thome-group-response-to-department-of-justice-ruling-on-the-etc-mena/ Thome Ship Management has cooperated fully with a US Department of Justice investigation into a failure to comply with MARPOL Regulations committed by engineers formerly deployed on the *ETC Mena*, a tanker under its management, following a USCG vessel examination on 26th April 2016.

Canada should protect 30% of its oceans: UN environment observer.

By Chris O'Neill-Yates. Canadian Broadcasting Corporation (CBC) [Online]. 23 June 2017.

Available from: http://www.cbc.ca/news/canada/newfoundland-labrador/ocean-protection-canada-united-nations-1.4171092 The world's largest environmental network says Canada falls far short of protecting its marine resources compared to other developed countries.

IMCA welcomes the UK Home Office concession. International Marine Contractors Association (IMCA) [Online]. 26 June 2017. Available from: https://www.imca-int.com/news/2017/06/26/imca-welcomes-uk-home-office-concession/. The International Marine Contractors Association (IMCA) welcomes the short term concession by the Home Office to immigration rules concerning seafarers joining vessels engaged in the construction and maintenance of offshore wind projects.

International Shipping Executives Indicted for Colluding on Bids and Rates. *US Department of Justice* [Online]. 27 June 2017. Available from: https://www.justice.gov/opa/pr/international-shipping-executives-indicted-colluding-bids-and-rates An indictment of three shipping executives was unsealed in U.S. District Court in Baltimore, the Department of Justice announced today.

Companies Announce Support for SDG 14 Implementation. By Leila Mead.

International Institute for Sustainable Development (IISD) [Online]. 27 June 2017.

Available from: http://sdg.iisd.org/news/companies-announce-support-for-sdg-14-implementation/
Albertsons Companies and Calysta are the latest to relay how they will help the international community meet targets on oceans.

Saudi Arabia ratchets up pressure on Qatar. By Mike Johnson. BBC World Service [Online]. 28 June 2017. Available from: http://www.bbc.co.uk/programmes/p0576ggx In an interview with the British newspaper the Guardian, the UAE's ambassador to Moscow, Omar Ghobash, threatened Qatar with more sanctions.

22



MARINE TECHNOLOGY

MOL Confirms 2% in Average CO2 Reduction with Windshield Installed on Bow of Containership. *Mitsui O.S.K. Lines Ltd.(MOL)* [Online]. 30 May 2017. Available from: http://www.mol.co.jp/en/pr/2017/17034.html Mitsui O.S.K. Lines, Ltd. (MOL; President & CEO: Junichiro Ikeda) today announced that the company has completed an in-service demonstration test of a wind resistance-reducing windshield for containerships, and determined that the device reduces emissions of carbon dioxide (CO2) by an average of 2%.

DNV GL Award for Young Professionals: Green Engineering for the Future of Shipping. By Nikos Späth. *DNV GL* [Online]. 29 May 2017. Available from: https://www.dnvgl.com/news/dnv-gl-award-for-young-professionals-green-engineering-for-the-future-of-shipping-93458 Presented by DNV GL – Maritime CEO Knut Ørbeck-Nilssen, the award is designed to find innovative ideas for increasing safety, efficiency and sustainability in shipping.

New Opportunities for Start-ups in the Maritime Sector.

Maritime and Port Authority of Singapore (MPA) [Online]. 5 June 2017. Available from: http://www.mpa.gov.sg/web/portal/home/media-centre/news-releases/detail/3d2f91a9-1526-471a-a37c-f378663d187f The Maritime and Port Authority of Singapore (MPA) has launched the first Smart Port Challenge 2017 (SPC 2017) welcoming close to 190 registered participants from the technology, start-up and the venture capital (VC) community as part of MPA's wider effort to develop innovation.

Robot Ghost Ships to Extend Miner's Technology Drive to Seas. By David Stringer. Bloomberg [Online]. 7 June 2017. Available from: https://www.bloomberg.com/news/articles/2017-06-06/robot-ghost-ships-to-take-miner-s-technology-drive-on-high-seas HP Billiton Ltd., the world's biggest mining company, is studying the introduction of giant, automated cargo ships to carry everything from iron ore to coal as part of a strategic shift that may disrupt the \$334 billion global shipping industry.

Autonomous vessels a step closer with new IMO decision. By Daniel Logan Berg-Munch. ShippingWatch [Online]. 16 June 2017. Available from: http://shippingwatch.com/secure/suppliers/article9657326.ece This is a decision that several EU member states along with Japan, South Korea and the US have been pushing for in an effort to ensure that the autonomous can become part of the commercial fleet as quickly as possible.

Peter Döhle invests in cloud technology for fleet monitoring. By Martyn Wingrove.

Marine Electronics and Communications [Online]. 15 June 2017. Available from:

http://www.marinemec.com/news/view,peter-dhle-invests-in-cloud-technology-for-fleet-monitoring_48110.htm
Peter Döhle Group is one of a growing number of shipping companies to invest in cloud-based platforms for managing its fleet. It is using Hanseaticsoft's Cloud Fleet Manager to monitor and manage more than 500 ships, including container ships, multipurpose vessels and bulk carriers.

Drones will slash delivery and survey costs on ships. By Martyn Wingrove.

Marine Electronics and Communications [Online]. 15 June 2017. Available from:

http://www.marinemec.com/news/view,drones-will-slash-delivery-and-survey-costs-on-ships_48112.htm
Class societies are already using remotely controlled vehicles for surveys and tank inspections and Maersk Tankers has piloted the use of flying drones for delivering parcels to ships close to shore.



Rolls-Royce demonstrates world's first remotely operated commercial vessel.

Lloyd's Register [Online]. 20 June 2017. Available from: http://www.lr.org/en/news-and-insight/news/rolls-royce-demonstrates-worlds-first-remotely-operated-commercial-vessel.aspx

Palla Payers and Spitters have successfully demonstrated the world's first remotely appearance.

Rolls-Royce and Svitzer have successfully demonstrated the world's first remotely operated commercial vessel in Copenhagen harbour, Denmark.

Beyond low-sulfur and high-technology. By Galen Hon, Principal, PoliSea Group. *Green4Sea* [Online]. 22 June 2017. Available from: http://www.green4sea.com/beyond-low-sulfur-high-technology/ High technology shows the path towards a decarbonized future offering many options such as hydrogen power.

Science tackles illegal fishing. Commonwealth Scientific and Industrial Research Organisation (CSIRO) [Online]. 26 June 2017. Available from: https://www.csiro.au/en/News/News-releases/2017/Science-tackles-illegal-fishing

The web-based reporting tool identifies and ranks vessels across the globe based on a list of behaviours associated with illegal, unregulated and unreported (IUU) fishing.

MARITIME SAFETY

ABS Expands Industry-leading Guidance for Fire Protection on Containerships.

ABS (American Bureau of Shipping) [Online]. 30 May 2017. Available from: http://ww2.eagle.org/en/news/press-room/2017/ABS-Expands-Industry-leading-Guidance-Fire-Protection-Containerships.html Enhanced Guide builds on industry's most comprehensive class standard supporting fire safety in the containership sector.

Shipwreck Casts Shadow Over Fleet of Vale Iron-Ore Carriers. By R. T. Watson. *Bloomberg* [Online]. 30 May 2017. Available from:

https://www.bloomberg.com/news/articles/2017-05-29/ships-hauling-vale-ore-scrutinized-following-deadly-shipwreck A second vessel contracted to haul iron ore for Brazilian miner Vale SA was delayed for repairs following the loss of a similar ship that mysteriously sank en route to China leaving 22 people presumed dead.

Global leaders sign new international declaration on ship safety at 3rd Joint Ministerial Conference. Paris MoU on Port State Control [Online]. 30 May 2017. Available from: https://www.parismou.org/global-leaders-sign-new-international-declaration-ship-safety-3rd-joint-ministerial-conference Upon the invitation of the Government of Canada more than 45 Ministers, Heads of Delegation, Chairmen and other representatives from 27 European and 23 Asia-Pacific countries came together to discuss the initiatives on eliminating sub-standard shipping in regions that are bound by the two memoranda.

Initial GBS verification process for IACS Common Structural Rules completed. *ClassNK* [Online]. 8 June 2017. Available from:

http://www.classnk.com/hp/en/hp_news.aspx?id=2414&type=press_release&layout=_ IMO Maritime Safety Committee has confirmed completion of the corrective actions requested by IMO to the International Association of Classification Societies' (IACS) Common Structural Rules for Bulk Carriers and Oil Tankers (CSR BC&OT) under the agenda item 6, Goal-Based New Ship Construction Standards (GBS) at its 98th session held on 7 June 2017.

NIMASA emerges Public Organisation of the Year 2016. News Express (Nigeria) [Online]. 13 June 2017. Available from: http://www.newsexpressngr.com/news/39846-NIMASA-emerges-Public-Organisation-of-the-Year-2016 The Nigerian Maritime Administration and Safety Agency (NIMASA) has emerged winner of the 2016 Public Organisation of the Year award organised by TELL Magazine Nigeria Limited.



Shipping's Safety Improving, But New Threats Like Cyber Will Require Additional Financial Resources from Ship Owners. By Nikos Roussanoglou. Hellenic Shipping News [Online]. 14 June 2017. Available from: http://www.goo.gl/brGwgm Allianz launched its latest annual survey on shipping safety.

Norwegian Embassy, UNITAR Hold Conference on Marine Safety. *This Day (Nigeria)* [Online]. 17 June 2017. Available from:

http://www.thisdaylive.com/index.php/2017/06/17/norwegian-embassy-unitar-hold-conference-on-marine-safety/ The Norwegian Embassy in Nigeria and the United Nations Institute for Training and Research (UNITAR) will hold a two-day International Conference on Marine Safety and Fisheries Protection for professionals from governments, regulatory agencies, private sector, and other relevant stakeholders in Lagos from July 13 –14, 2017.

Remarks by Marine Safety Center commanding officer at Int'l Maritime Safety Conference. US Coast Guard Maritime Commons [Online]. 15 June 2017. Available from: http://mariners.coastguard.dodlive.mil/2017/06/15/6152017-remarks-by-marine-safety-center-commanding-officer-at-intl-maritime-safety-conference/ Earlier this week, Capt. John Mauger, commanding officer of the Marine Safety Center, delivered a keynote address at the opening of the third annual International Maritime Safety Conference in Busan, Korea.

U.S. Cruise Ship Detention Rate Drops. *Maritime Executive* [Online]. 27 June 2017. Available from: http://www.maritime-executive.com/article/us-cruise-ship-detention-rate-drops The U.S. Coast Guard Cruise Ship National Center of Expertise (CSNCOE) has issued its list of the top five deficiency areas it found on cruise vessels in 2016, with detention rates dropping to one percent from the previous year's 1.6 percent.

The Port of Helsinki promotes the use of LNG – safety manual for bunkering published. Port of Helsinki [Online]. 27 June 2017. Available from: http://www.portofhelsinki.fi/en/port-helsinki/promotes-use-lng-safety-manual-bunkering-published Liquefied natural gas, or LNG for short, is becoming an increasingly popular marine fuel, largely due to the fact that it is a significantly more environmentally friendly option than traditional diesel or heavy fuel oil. Safety manual on LNG bunkering procedures for the Port of Helsinki

MARITIME SECURITY

Industry collaboration to combat cybercrime with a global Cyber Incident Reporting Portal. By Vanja Arsenovic. Nor-Shipping [Online]. 31 May 2017. Available from: http://nor-shipping.com/press-release-industry-collaboration-combat-cybercrime-global-cybercrime-reporting-portal/ Mark Sutcliffe, Founder of CSO Alliance, is pleased to announce an industry collaboration to combat cybercrime in shipping by creating a global reporting portal.

U.S. Coast Guard Academy cadets' research seeks ways to improve anti-trafficking efforts in Gulf of Guinea. By Lt. Cmdr. Todd Behney. *United States Africa Command* [Online]. 2 June 2017. Available from: http://www.africom.mil/media-room/article/28946/u-s-coast-guard-academy-cadets-research-seeks-ways-to-improve-anti-trafficking-efforts-in-gulf-of-g Three cadets from the U.S. Coast Guard Academy completed a research project examining ways to improve anti-trafficking efforts in the Gulf of Guinea.

Email scam targets masters. By Sam Chambers. *Splash 24*/7 [Online]. 8 June 2017. Available from: http://splash247.com/email-scam-targets-masters/ Law firm Reed Smith is reporting on a growing email scam being circulated amongst owners and charterers and, in particular, being sent to ships.



North Korea fires suspected land-to-ship missiles as South Korea delays THAAD. By Ju-min Park and Soyoung Kim. Reuters [Online]. 8 June 2017. Available from: http://www.reuters.com/article/us-northkorea-missiles-idUSKBN18Y383 North Korea fired what appeared to be several land-to-ship missiles off its east coast on Thursday, South Korea's military said, a day after the South postponed full deployment of a controversial U.S. anti-missile system designed to deter a North Korean attack.

Bomb Threat Forces Scandlines to Interrupt Service. *Maritime Executive* [Online].
7 June 2017. Available from: http://www.maritime-executive.com/article/bomb-threat-forces-scandlines-to-interrupt-service Scandlines' ferry operations between Sweden, Denmark and Germany were briefly interrupted Wednesday after a telephoned bomb threat forced police to search multiple vessels.

Over a Ton of Heroin Seized aboard OSV off Turkey. World Maritime News [Online]. 7 June 2017. Available from: http://worldmaritimenews.com/archives/222131/over-a-ton-of-heroin-seized-aboard-osv-off-turkey/ Turkish security forces have seized one tonne and 71 kilograms of heroin on board an offshore supply ship identified as *Commander Tide*, Turkish media reported.

Iranian Naval Flotilla to Set Sail for Oman Today. *Tasnim News Agency (Iran)* [Online]. 11 June 2017. Available from: https://www.tasnimnews.com/en/news/2017/06/11/1433609/iranian-naval-flotilla-to-set-sail-for-oman-today The Iranian Navy's 47th flotilla of warships will depart the country's southern waters off the port city of Bandar Abbas for an overseas mission to Oman and then to international waters.

Marina issues security advisory on Mindanao. By Ben Kritz. Manila Times [Online]. 10 June 2017. Available from: http://www.manilatimes.net/marina-issues-security-advisory-mindanao/331940/ The Maritime Industry Authority (Marina) has issued security guidelines for all ships calling at Mindanao ports in light of the imposition of martial law there and the ongoing crisis in Marawi City.

UK ports address terror threat. *Port Strategy* [Online]. 8 June 2017. Available from: http://www.portstrategy.com/news101/world/europe/addressing-the-terror-threat In the wake of the recent terror attacks which have taken place in the UK, British ports need to remain vigilant.

Gulf of Guinea Interregional Network to Fight Crime at Sea. Gulf of Guinea Interregional Network (GOGIN) [Online]. 8 June 2017. Available from: http://www.goo.gl/WtMoNh Nineteen coastal countries stretching from Senegal to Angola have started working together in a joint effort at fighting crime at sea.

How to Steal a Ship - Part 2. By Capt. Dana A. Goward and Prof. Todd Humphrey.

Maritime Executive [Online]. 12 June 2017. Available from: http://maritime-executive.com/editorials/how-to-steal-a-ship-part-2 A recent article in The Maritime Executive described how a malicious actor could, with minimal effort, influence a ship's course and speed over the period of several days.

Nigeria now 80% ISPS compliant. By Gloria Ehiaghe. Guardian (Nigeria) [Online]. 14 June 2017. Available from: https://guardian.ng/business-services/maritime/nigeria-now-80-isps-compliant/ Nigeria may have achieved about 80 per cent compliant to the International Ships and Port Facility Security (ISPS) Code, with about 114 port facilities complied with the international convention.



North P&I Club Joins Industry Coalition to Combat Cyber Crime. North of England P&I Association [Online]. 13 June 2017. Available from: http://www.nepia.com/news/press-releases-area/north-pi-club-joins-industry-coalition-to-combat-cyber-crime/ North P&I Club has joined a collaboration between shipping industry leaders, including BIMCO, DNV GL and the Marshall Islands Registry, to combat cyber criminals by committing to the CSO Alliance's global information and reporting platform for digital attacks.

Bomb threat on Maersk vessel shuts down Port of Charleston. By Søren Pico. ShippingWatch [Online]. 15 June 2017. Available from: http://shippingwatch.com/secure/carriers/Container/article9653775.ece Suspicions of a dirty bomb in a container on board a Maersk Line vessel resulted in the evacuation of a terminal in the US Port of Charleston on Wednesday night local time.

Coast Guard determines no bomb on Maersk vessel. By Daniel Logan Berg-Munch. ShippingWatch [Online]. 15 June 2017. Available from: http://shippingwatch.com/secure/carriers/Container/article9654063.ece The US Coast Guard has now called off the threat against vessel Maersk Memphis which led to the evacuation of a terminal in the Port of Charleston, South Carolina, informs the Coast Guard Seventh District on Twitter.

Counter piracy forces focus for maximum effect. Combined Maritime Forces [Online].

13 June 2017. Available from: https://combinedmaritimeforces.com/2017/06/13/counter-piracy-forces-focus-for-maximum-effect/ Following a recent Combined Maritime Force focused operation, a counter piracy task force has developed significant insights into the activities of mariners off Somalia.

One wounded in missile attack on UAE ship off Yemen, SPA reports. By Mostafa Hashem. Reuters [Online]. 15 June 2017. Available from: http://www.reuters.com/article/us-yemen-security-ports-idUSKBN19604S One crew member was wounded when Yemen's Houthis fired a missile at a United Arab Emirates ship carrying medical supplies in the Red Sea, the UAE news agency WAM reported on Thursday.

PCG takes over security operations in all seaports. *Philippine Coast Guard* [Online]. 14 June 2017. Available from: http://www.coastguard.gov.ph/index.php/11-news/1637-pcg-takes-over-security-operations-in-all-seaports The Philippine Coast Guard today announced that it will formally "take over the security supervision of ports, and shipping, whether public or private, including the egress and ingress to all waterways from the Maritime Industry Authority (MARINA) and the Philippine Port Authority (PPA)", by virtue of Department Order (D.O.) No. 2017-008 issued on June 5, 2017.

ISPS Code – How it figures in PH fight against terrorism. By Brenda Pimentel.

Manila Times [Online]. 18 June 2017. Available from: http://www.manilatimes.net/isps-code-figures-ph-fight-terrorism/312849/ The International Maritime Organization (IMO) adopted the International Ship and Port Facility Security Code (ISPS Code) in 2002 following the attack on the Twin Towers in the US. The Code aims to detect threats to security and introduce measures to prevent security incidents on ships and port facilities.

Maritime security – implementing the ISPS Code. Manila Times [Online]. 17 June 2017. Available from: http://www.manilatimes.net/maritime-security-implementing-isps-code/333227/ Transportation Secretary Arthur Tugade issued Department Order (DO) 2017-008 last June 5, directing the Philippine Coast Guard (PCG) "to take over the security supervision of ports, and shipping, whether public or private, including the egress and ingress to all waterways."



Ensuring Security of Regional Waters Objective behind Iran-China Naval Drill:

Commander. Tasnim News Agency (Iran) [Online]. 19 June 2017. Available from:

https://www.tasnimnews.com/en/news/2017/06/19/1440717/ensuring-security-of-regional-waters-objective-behind-iran-china-naval-drill-commander Iranian Navy Commander Rear Admiral Habibollah Sayyari announced that a recent naval exercise between the Islamic Republic and China was aimed at ensuring the security of the Northern Indian Ocean and the Gulf of Aden.

Indonesia, Malaysia, Philippines launch joint operations in Sulu Sea to tackle terrorism, transnational crimes. By Francis Chan. Straits Times [Online]. 19 June 2017.

Available from: http://www.straitstimes.com/asia/indonesia-malaysia-and-philippines-launch-joint-operations-in-sulu-sea-to-tackle-terrorism Joint operations by Indonesia, Malaysia and the Philippines to fight terrorism and transnational crimes in the Sulu Sea were launched on Monday (June 19) morning from Tarakan island in North Kalimantan.

Australian inquiry focuses on security gaps. By Gary Dixon. *TradeWinds* [Online]. 21 June 2017. Available from: http://www.tradewindsnews.com/drycargo/1287645/australian-inquiry-focuses-on-security-gaps An Australian senate inquiry is examining what the ITF union calls "dangerous gaps" in the country's maritime security exposed by the so-called "death ship" *Sage Sagittarius*.

Senate Inquiry Focuses on Dangerous Gaps in Australian Maritime Security. By Mich-Elle Myers. Maritime Union of Australia (MUA) [Online]. 21 June 2017. Available from: http://www.mua.org.au/senate_inquiry_focuses_on_dangerous_gaps_in_australian_maritime_security Australian Border Force (ABF) officials will be back in the hot seat today as the Senate Inquiry into Flag of Convenience (FOC) Shipping resumes.

Shipowners must employ onboard IT officers. By Martyn Wingrove. *Marine Electronics and Communications* [Online]. 28 June 2017. Available from: http://www.goo.gl/J4RgS5 % Shipowners and operators need to have specialised information technology experts on board vessels as ships become more technically advanced and connected.

"A serious pressure test of Maersk's cyber security measures". By Louise Vogdrup-Schmidt. ShippingWatch [Online]. 28 June 2017. Available from: http://shippingwatch.com/secure/carriers/Container/article9685841.ece Tuesday's hacker attack against Maersk, which has crippled the group's IT systems and crashed systems including Maersk Line's website, constitutes a serious test of security measures at the world's largest shipping group, says Lars Jensen, analyst at Seaintelligence Consulting and CEO of firm Cyber Keel, which works with IT security for carriers.

Maersk Shuts Down Some Systems to Help Contain Cyber Attack. By Christian Wienberg. Bloomberg [Online]. 28 June 2017. Available from: https://www.bloomberg.com/news/articles/2017-06-28/maersk-has-shut-down-some-systems-to-help-contain-cyber-attack-j4gojbu7 A.P. Moller-Maersk A/S has shut down systems across its operations to contain a cyber attack against its computer network as it assesses the full impact.

APM Terminals container facilities across the globe hit by cyber-attack. By Lee Hong Liang. Seatrade Maritime News [Online]. 28 June 2017. Available from: http://www.seatrade-maritime.com/news/asia/several-apm-terminal-container-operations-compromised-by-cyber-attack.html The operations container terminals around the world operated by APM Terminals, a unit of AP Moller-Maersk Group, have been affected following a ransomware attack on the Danish shipping giant, reports said.



Maersk confirms: IT crash is caused by hackers. By Daniel Logan Berg-Munch, Louise Vogdrup-Schmidt, Niklas Krigslund, and Søren Pico. ShippingWatch [Online]. 27 June 2017. Available from: http://shippingwatch.com/secure/carriers/Container/article9684244.ece A cyber attack has triggered a comprehensive breakdown in the Maersk Group's IT systems across the world, the group confirms to ShippingWatch.

Japan woos Asean in aim to be leading security player. By Walter Sim. Straits Times [Online]. 29 June 2017. Available from: http://www.straitstimes.com/asia/east-asia/japan-woos-asean-in-aim-to-be-leading-security-player As part of Japan's desire to play a leading role in maritime security in the region befitting its status as a major power, it has been increasingly making overtures to Asean, according to experts.

MSC confirms that it is not under attack from ransomware known as 'PETYA'.

Mediterranean Shipping Company (MSC) [Online]. 28 June 2017. Available from:

https://www.msc.com/che/news/2017-june/msc-statement-concerning-petya-cyber-attack

At this time, we would like to reassure all our customers that MSC's systems and business operations are working normally and bookings can be placed as usual.

Maersk's booking system up and running. By Leonora Beck. *ShippingWatch* [Online]. 29 June 2017. Available from:

http://shippingwatch.com/secure/carriers/Container/article9688360.ece The Maersk Group is a step closer to having normalized its systems after the group was hit by a global cyber attack on Tuesday.

MARITIME TRAINING

New guide examines major casualty response. Safety 4 Sea [Online]. 1 June 2017. Available from: http://www.safety4sea.com/new-guide-examines-major-casualty-response/ Developed out of the Swedish Club's Emergency Response Training programme, Anatomy of an Accident focuses on a realistic incident scenario run by the Club with participants from important maritime services and support sectors.

Anatomy of an Accident. Swedish Club [Online]. May 2017. Available from: http://www.goo.gl/ui6AUa A key element of The Swedish Club's Emergency Response Training programme is the creation of a realistic incident scenario, run in situ and involving not only our members, but professionals working in important maritime services and support sectors.

Filipinos among latest IMO International Maritime Law Institute graduates. Government of the Philippines [Online]. 1 June 2017. Available from: http://www.goo.gl/49GpNP Philippine Permanent Representative to the International Maritime Organization and Deputy Chief of Mission Gilberto Asuque (3rd from left) congratulates the new Filipino graduates from the International Maritime Law Institute (IMLI) in Malta who completed their Masters of Law Degree on International Maritime Law.

High costs for inadequacies in ECDIS training. By Namrata Nadkarni. *Marine Professional / IMarEST* [Online]. 12 June 2017. Available from: https://www.imarest.org/themarineprofessional/item/3408-high-costs-for-inadequacies-in-ecdistraining A ship has been detained in Brisbane by the Australian Maritime Safety Authority (AMSA) due to a lack of onboard familiarisation training in the use of Electronic Chart Display and Information Systems (ECDIS).



Ice Navigator Training Aims to Plug a Hole in the Polar Code. By Ian Evans. *Arctic Deeply (US)* [Online]. 19 June 2017. Available from:

https://www.newsdeeply.com/arctic/community/2017/06/19/ice-navigator-training-aims-to-plug-a-hole-in-the-polar-code
There is currently no international certification for mariners who navigate through icy Arctic waters, so industry is moving to fill the void, says Captain David "Duke"
Snider, president of the Nautical Institute.

Five for Five: Coventry University offers five scholarships for maritime security program. *Maritime Executive* [Online]. 19 June 2017. Available from: http://maritime-executive.com/editorials/five-for-five Five new scholarships offered to celebrate fifth anniversary of maritime security program at Coventry University's Centre for Trust, Peace and Social Relations.

Save Maritime Academy from imminent collapse - A'lbom group begs fed govt.

By Yemi Oluwadare. *Today (Nigeria)* [Online]. 24 June 2017. Available from: https://www.today.ng/news/nigeria/307059/save-maritime-academy-imminent-collapse-aibom-group-begs-fed-govt Akwa Ibom youths under the auspices of the Conference of Oro Youth Leaders have called on Acting President Yemi Osinbajo to save the Maritime Academy of Nigeria, Oron, from imminent collapse.

MIGRANTS

Update on rescue at sea operations in the Central Mediterranean.

United Nations High Commissioner for Refugees (UNHCR) [Online]. 30 May 2017. Available from: http://www.unhcr.org/news/briefing/2017/5/592d31274/update-rescue-sea-operations-central-mediterranean.html The total number of people crossing the Central Mediterranean since the beginning of the year has now passed 60,000, with close to 9,500 migrants and refugees rescued over the past week and disembarked in various Italian ports.

Far right raises £50,000 to target boats on refugee rescue missions in Med. By Mark Townsend. The Guardian [Online]. 4 June 2017. Available from: https://www.theguardian.com/world/2017/jun/03/far-right-raises-50000-target-refugee-rescue-boats-med Far-right activists are planning a sea campaign this summer to disrupt vessels saving refugees in the Mediterranean, after successfully intercepting a rescue mission last month.

Over 40 Migrants Die of Thirst in Sahara Desert as Mediterranean Arrivals Top 71,000, Deaths 1,650. International Organization for Migration (IOM) [Online]. 2 June 2017. Available from: https://www.iom.int/news/over-40-migrants-die-thirst-sahara-desert-mediterranean-arrivals-top-71000-deaths-1650 IOM, the UN Migration Agency, reports that 71,029 migrants and refugees entered Europe by sea in 2017 through 31 May, with over 80 per cent arriving in Italy and the remainder arriving in Greece, Cyprus and Spain.

Mediterranean Migrant Arrivals Reach 71,418 in 2017; Deaths: 1,650.

International Organization for Migration (IOM) [Online]. 6 June 2017. Available from:
http://www.iom.int/news/mediterranean-migrant-arrivals-reach-71418-2017-deaths-1650

IOM, the UN Migration Agency, reports that 71,418 migrants and refugees entered Europe by sea in 2017 through 04 June, with nearly 85 percent arriving in Italy and the remainder arriving in Greece, Cyprus and Spain.



Mediterranean Migrant Arrivals Reach 72,336 in 2017; 1, 711 Deaths.

International Organization for Migration (IOM) [Online]. 9 June 2017. Available from: https://www.iom.int/news/mediterranean-migrant-arrivals-reach-72336-2017-1-711-deaths
The UN Migration Agency (IOM) reports that 72,336 migrants and refugees entered Europe by sea in 2017 through 7 June, with almost 85 percent arriving in Italy and the remainder divided between Greece, Cyprus and Spain.

News comment on latest shipwrecks on Mediterranean Sea. By Vincent Cochetel, Director, Europe Bureau. *United Nations High Commissioner for Refugees (UNHCR)* [Online]. 11 June 2017. Available from: http://www.unhcr.org/uk/news/press/2017/6/593d55bb4/news-comment-latest-shipwrecks-mediterranean-sea.html UNHCR is deeply concerned about the latest reports of deaths at sea on the Mediterranean this weekend.

Rescuers 'not to blame' for rise in migrant crossings and deaths, research finds. By Pete Wilton. *Goldsmiths, University of London* [Online]. 9 June 2017. Available from: http://www.gold.ac.uk/news/blaming-the-rescuers/ Efforts by non-governmental organisations (NGOs) to rescue migrants crossing the Mediterranean are not making these crossings more frequent or more dangerous, an investigation by researchers at Goldsmiths, University of London has found.

Blaming the Rescuers: Criminalising solidarity, re-enforcing deterrence.

Goldsmiths, University of London [Online]. 9 June 2017. Available from: https://blamingtherescuers.org/ Aiming to deter migrants from crossing the Mediterranean, the EU and its member states pulled back from rescue at sea at the end of 2014, leading to record numbers of deaths. Non-governmental organisations (NGOs) were forced to deploy their own rescue missions in a desperate attempt to fill this gap and reduce casualties.

Frontex chief: Migrant influx shifting but no let-up. EurActiv [Online]. 13 June 2017. Available from: http://www.euractiv.com/section/justice-home-affairs/news/frontex-chief-migrant-influx-shifting-but-no-let-up/ A criminal industry has flourished, while the European Union has beefed up its border agency Frontex to try to check the mass migration.

Mediterranean Migrant Arrivals Reach 73,189 in 2017; 1,808 Deaths.

International Organization for Migration (IOM) [Online]. 13 June 2017. Available from: http://www.iom.int/news/mediterranean-migrant-arrivals-reach-73189-2017-1808-deaths
The UN Migration Agency (IOM) reports that 73,189 migrants and refugees entered Europe by sea in 2017 through 11 June, with almost 85 per cent arriving in Italy and the remainder divided between Greece, Cyprus and Spain.

Rescue ships pick up 1,000 boat migrants: Italy coastguard. By Antonio Denti. Reuters [Online]. 15 June 2017. Available from: https://www.reuters.com/article/us-europe-migrants-rescue-italy-idUSKBN1962GD Humanitarian rescue ships picked up more than 1,000 migrants from nine rubber and wooden boats off the coast of Libya on Thursday, Italy's coastguard said.

Ships rescue some 730 migrants in Mediterranean. By Sarah White, Stephen Jewkes, and Antonio Denti. Reuters [Online]. 18 June 2017. Available from: https://uk.reuters.com/article/uk-europe-migrants-rescues-idUKKBN1990P8 Humanitarian ships picked up about 730 migrants on Sunday from rubber and wooden boats in the Mediterranean, adding to a lengthening list of rescue operations in recent days.



Mediterranean Migrant Arrivals Reach 81,292 in 2017; 1,985 Deaths.

International Organization for Migration (IOM) [Online]. 20 June 2017. Available from: https://www.iom.int/news/mediterranean-migrant-arrivals-reach-81292-2017-1985-deaths
The UN Migration Agency (IOM) reports that 81,292 migrants and refugees entered Europe by sea in 2017 through 18 June, with 85 per cent arriving in Italy and the remainder divided among Greece, Cyprus and Spain.

World Refugee Day - Reports of three new shipwrecks in the Mediterranean Sea. United Nations High Commissioner for Refugees (UNHCR) [Online]. 20 June 2017. Available from: http://www.unhcr.org/uk/news/briefing/2017/6/5948dfb64/world-refugee-day-reports-three-new-shipwrecks-mediterranean-sea.html This is a summary of what was said by UNHCR spokesperson Cécile Pouilly at today's press briefing at the Palais des Nations in Geneva.

Mediterranean Migrant Arrivals Reach 83,928 in 2017; 2,108 Deaths.

International Organization for Migration (IOM) [Online]. 23 June 2017. Available from: https://www.iom.int/news/mediterranean-migrant-arrivals-reach-83928-2017-2108-deaths
The UN Migration Agency (IOM) reports that 83,928 migrants and refugees entered Europe by sea in 2017 through June 21, with almost 85 per cent arriving in Italy and the remainder divided between Greece, Cyprus and Spain.

LÉ Eithne transports 712 migrants to safety in Mediterranean. *Irish Times* [Online]. 25 June 2017. Available from: https://www.irishtimes.com/news/ireland/irish-news/l%C3%A9-eithne-transports-712-migrants-to-safety-in-mediterranean-1.3133348 The Irish naval ship *LÉ* Eithne was involved in transporting 712 migrants to safety on Sunday as its responded to a series of situations in the Mediterranean.

Rescuers made 'scapegoat' for Italian frustration with migrant crisis. By Steve Scherer. Reuters [Online]. 23 June 2017. Available from: https://www.reuters.com/article/us-europe-migrants-italy-ngo-idUSKBN19E0HM Anne Marie Loof has devoted her life to humanitarian work but says she understands why some Italians have started painting people like her as villains.

10th Global Forum on Migration and Development Opens in Berlin.

International Organization for Migration (IOM) [Online]. 28 June 2017. Available from: https://www.iom.int/news/10th-global-forum-migration-and-development-opens-berlin
The annual Global Forum on Migration and Development (GFMD) has opened with commitment from high level officials to advance global migration governance and leverage the development and economic benefits of migration.

52 Dead in Niger as UN Migration Agency Search and Rescue Operation Saves 600 Stranded Migrants in Sahara Desert. *International Organization for Migration (IOM)* [Online].
27 June 2017. Available from: https://www.iom.int/news/52-dead-niger-un-migration-agency-search-and-rescue-operation-saves-600-stranded-migrants Sunday morning (25/06), 24 migrants alerted authorities in Niger that they had been stranded in the desert. It is not clear for how long they had been walking in the deserts of central Niger, near Seguedine.



Italy considers closing its ports to boats carrying migrants. By Patrick Wintour.

The Guardian [Online]. 28 June 2017. Available from:

https://www.theguardian.com/world/2017/jun/28/italy-considers-closing-its-ports-to-ships-from-libya The Italian government is considering blocking boats carrying migrants from landing at its ports after nearly 11,000 refugees arrived on its shores in five days.

Briefing on the 2017 Trafficking in Persons Report. By Susan Coppedge, Office to Monitor and Combat Trafficking in Persons. *US Department of State* [Online]. 27 June 2017. Available from: https://www.state.gov/r/pa/prs/ps/2017/06/272212.htm This morning, Secretary Tillerson released the 2017 Trafficking in Persons Report, a reflection of global leadership on this key human rights issue and our principal diagnostic tool to assess government efforts across the three Ps of prosecution, protection, and prevention.

Trafficking in Persons Report: June 2017

NAVIGATION AND COMMUNICATIONS

New satellites progress AIS tracking. By Namrata Nadkarni. *Marine Professional / IMarEST* [Online]. 31 May 2017. Available from: https://www.imarest.org/themarineprofessional/item/3365-four-satellites-launched-as-part-of-exactearth-s-exactview-rt-system Four real-time satellites have just successfully brought into service as part of the launch of its global, persistent real-time Satellite AIS service, exactEarth has announced at the Nor-Shipping exhibition currently taking place in Oslo.

IT technology unveiled at Nor-Shipping 2017. By Martyn Wingrove. Marine Electronics and Communications [Online]. 30 May 2017. Available from: http://www.marinemec.com/news/view,it-technology-unveiled-at-norshipping-2017 47879.htm Satellite communications, IT and bridge equipment technology was unveiled at Nor-Shipping 2017 in Oslo, Norway.

VTT develops new technology for autonomous ship navigation systems: Autopilot steers during evasive manoeuvres and docking. VTT Technical Research Centre of Finland Ltd [Online]. 19 June 2017. Available from: http://www.vttresearch.com/media/news/vtt-develops-new-technology-for-autonomous-ship-navigation-systems VTT Technical Research Centre of Finland is developing safe steering for the remote-monitored and controlled autonomous ships of the future.

IMO decides on 2024 for modernised GMDSS. By Aline De Bièvre. Marine Electronics and Communications [Online]. 20 June 2017. Available from: http://www.marinemec.com/news/view.imo-decides-on-2024-for-modernised-gmdss-48177.htm IMO's Maritime Safety Committee (MSC) approved a modernisation plan for the Global Maritime Distress and Safety System (GMDSS), which saves hundreds of seafarers' lives every year, at its recent June session (MSC 98).

Iridium launches new satellites on IMO Day of the Seafarer. By Martyn Wingrove.

Marine Electronics and Communications [Online]. 26 June 2017. Available from:

http://www.marinemec.com/news/view,iridium-launches-new-satellites-on-imo-day-of-the-seafarer_48223.htm Iridium Communications took a further step towards improving communications for mariners by launching another set of satellites on IMO's Day of the Seafarer.



Seafarer connectivity at sea barely sufficient for family video calls - Nautilus survey.

Nautilus International [Online]. 26 June 2017. Available from: https://nautilusint.org/en/what-we-say/nautilus-news/seafarer-connectivity-at-sea-barely-sufficient-for-video-calls-nautilus-survey/ A Nautilus survey of nearly 2,000 seafarers and shipping industry leaders has found that barely six percent of seafarers have sufficient internet connectivity for video calls when at sea, despite often being away from their families for months on end.

An investigation into connectivity at sea

Taking underwater communications into the 21st century. By Gary Peters. Ship-Technology.Com [Online]. 27 June 2017. Available from: http://www.goo.gl/p93Ppd It's clear from John Potter's tone that JANUS, named after the Roman god of openings and gateways, is something he and his colleagues have been itching to release unto the world for some time.

PIRACY

EU NAVFOR Confirms Oil Tanker Attacked in Bab-el-Mandeb Strait – Incident Under Investigation. *EU NAVFOR Somalia* [Online]. 31 May 2017. Available from: http://eunavfor.eu/eu-navfor-confirms-oil-tanker-attacked-in-bab-el-mandeb-strait-incident-under-investigation/ EU NAVFOR can confirm that earlier today, 31 May 2017, a Marshall Islands-flagged oil tanker was approached and fired upon by three men in a skiff in the southern Bab-el-Mandeb (BAM) Strait.

EU NAVFOR Confirms Attack by Suspected Pirates on Oil Tanker in Gulf of Oman – Vessel Now Safe. *EU NAVFOR Somalia* [Online]. 1 June 2017. Available from: http://eunavfor.eu/eu-navfor-confirms-attack-by-suspected-pirates-on-oil-tanker-in-gulf-of-oman-vessel-now-safe/ EU NAVFOR can confirm that oil tanker, *MT NAVIG8 Providence*, came under attack by suspected armed pirates earlier today in the Gulf of Oman.

Statement to Industry. Combined Maritime Forces [Online]. 12 June 2017. Available from: https://combinedmaritimeforces.com/2017/06/12/statement-to-industry/ Recent attacks against merchant shipping in the Gulf of Aden and Bab-el-Mandeb have highlighted that there are still risks associated with transits through these waters.

Asia's Deadly Pirates. By Neil Thompson. *The Diplomat* [Online]. 21 June 2017. Available from: http://thediplomat.com/2017/06/asias-deadly-pirates/ Despite genuine improvements in maritime security by Asian littoral states in recent years, Asia remains the global number one hotspot for piracy on the high seas, according to reports from global maritime watchdogs and shipping industry groups.

Royal 16 crewman rescued from hijackers. By Dale Wainwright. *TradeWinds* [Online]. 22 June 2017. Available from: http://www.tradewindsnews.com/casualties/1288665/royal-16-crewman-rescued-from-hijackers Philippine government troops have reportedly rescued a seafarers taken hostage last November from a Vietnamese bulker.

Pirates raid Thai fuel tanker off Kuantan. *Malay Mail Online* [Online]. 26 June 2017. Available from: http://www.themalaymailonline.com/malaysia/article/pirates-raid-thai-fuel-tanker-off-kuantan A Thai-registered tanker fell victim to maritime pirates who siphoned 1.5 million litres of diesel from the vessel last week.



Nigeria records reduced pirates' attacks in 2017. *Nigerian Tribune* [Online]. 29 June 2017. Available from: http://tribuneonlineng.com/nigeria-records-reduced-pirates-attacks-2017/
Pirate attacks in the coast of Nigeria, reduced significantly in the first half of 2017 following some measures adopted by the Federal Government, the Minister of Defence, Mansur Dan-Ali has said.

Why be a pirate? Understanding motivations for piracy. By Zamzam Tatu, Senior Analyst, M&C Saatchi World Services, Kenya. *Piracy Studies* [Online]. 27 June 2017. Available from: http://piracy-studies.org/why-be-a-pirate-understanding-motivations-for-piracy/ Following primary research recently conducted at Montagne Posse Prison, Seychelles, little has changed behind the drivers to commit maritime crime.

"Maritime security in the Gulf of Guinea: Strengthening capacities development". *G7 Group of Friends of the Gulf of Guinea (G7++FoGG)* [Online]. 28 June 2017. Available from: http://www.g7italy.it/en/news/the-g7-group-of-friends-of-the-gulf-of-guinea-g7-fogg-met-in-rome-on-june-26-27 The G7 countries, as well as Australia, Belgium, South Korea, Denmark, Norway, the Netherlands, Portugal, Spain, Switzerland and all the countries of the Region attended the event in Rome on June 26-27, 2017. Meeting Documents

PORT STATE CONTROL

Cargo ship Kiunga Chief banned from Australian ports.

Australian Maritime Safety Authority (AMSA) [Online]. 5 June 2017. Available from: http://www.amsa.gov.au/media/documents/05062017 AMSAmediarelease KiungaChiefbannedf romAustraliaforthreemonths.pdf

The Australian Maritime Safety Authority (AMSA) has banned the Papua New Guinea-flagged cargo ship Kiunga Chief from entering or using Australian ports for three months after the ship was detained for a third time in less than 18 months due to the failure of its operators to safely and effectively manage the operations of the vessel.

MLC Inspection Campaign Successful. Maritime Executive [Online]. 8 June 2017. Available from: http://www.maritime-executive.com/article/mlc-inspection-campaign-successful Port state control officers in the Paris MoU region performed a Concentrated Inspection Campaign (CIC) on the Maritime Labour Convention (MLC) from September to November 2016 – and were generally satisfied with the results.

Livestock carrier banned by Paris MOU. By Gary Dixon. *TradeWinds* [Online]. 8 June 2017. Available from: http://www.tradewindsnews.com/casualties/1277341/livestock-carrier-banned-by-paris-mou A veteran Lebanese livestock carrier has been banned from Paris MOU ports after failing its third inspection in three years.

Foreign flagged ships under detention in the UK during May 2017. UK Maritime & Coastguard Agency [Online]. 9 June 2017. Available from: https://www.gov.uk/government/news/foreign-flagged-ships-under-detention-in-the-uk-during-may-2017 During May, there were three new detentions of foreign flagged vessels in a UK port.

Brazil Starts with Inspection of Older Vessels. World Maritime News [Online]. 23 June 2017. Available from: http://worldmaritimenews.com/archives/223509/brazil-starts-with-inspection-of-older-vessels/ Brazil has introduced a new inspection requirement in its ports, following a number of recent casualties involving bulk carriers, marine insurer West of England informed.



PORTS AND HARBOURS

PSSP Will Make Nigerian Ports Regional Trade Hub. By Eromosele Abiodun. This Day (Nigeria) [Online]. 2 June 2017. Available from: https://www.thisdaylive.com/index.php/2017/06/02/fg-pssp-will-make-nigerian-ports-regional-trade-hub/ The federal government has said that the launch of the Standard Operating procedures (SOP) and Port Service Support Portal (PSSP) will ultimately make the Nigerian ports regional trade hub.

Port of Gothenburg to UN Ocean Conference. Port of Gothenburg [Online]. 2 June 2017. Available from: https://www.portofgothenburg.com/news-room/press-releases/port-of-gothenburg-to-un-ocean-conference/ During the coming week, Sweden will be hosting the UN Ocean Conference in New York. Global emissions from shipping will be high on the agenda.

MSC to develop and expand TCSP facility at San Pedro Port in Ivory Coast. Ship-Technology.Com [Online]. 1 June 2017. Available from: http://www.ship-technology.com/news/newsmsc-to-develop-and-expand-tcsp-facility-at-san-pedro-port-in-ivory-coast-5830739 Mediterranean Shipping Company (MSC) has entered into a 35-year concession agreement with Ivory Coast's (Côte d'Ivoire) San Pedro Port for the operation and expansion of the port's San Pedro Container Terminal (TCSP).

India to be first in world to run all government ports on green energy. By Rajat Arora. *Economic Times (India)* [Online]. 31 May 2017. Available from: http://economictimes.indiatimes.com/industry/transportation/shipping-/-transport/india-to-be-first-in-world-to-run-all-government-ports-on-green-energy/articleshow/58917369.cms All 12 major domestic ports will soon switch to renewable energy to meet their entire power requirements, making India the first country to have all government-owned ports running on solar and wind energy.

Chances and challenges. *Port Strategy* [Online]. 3 June 2017. Available from: http://www.portstrategy.com/news101/world/europe/themes-and-challenges There's renewed focus on the opportunities for Europe's ports.

All Roads Lead to Automation. By Dr Oscar Pernia, VP Terminal Operational Innovation, Navis. Maritime Executive [Online]. 31 May 2017. Available from: http://maritime-executive.com/editorials/all-roads-lead-to-automation Automation can also be a solution to other vital terminal operator concerns by reducing operating costs, optimizing efficiency and economic utilization of space, argues Dr Oscar Pernia, Vice President of Terminal Operational Innovation at Navis.

ULCVs will ply the transpacific trade, but the ports are not ready for them. By Mike Wackett. *The Loadstar* [Online]. 5 June 2017. Available from: https://theloadstar.co.uk/ulcvs-will-ply-transpacific-trade-ports-not-ready/ Despite a near doubling of the number of 13,000 teu-or-above vessels deployed on the transpacific Asia-US west coast trade this year, the Los Angeles-Long Beach port complex remains unprepared for the introduction of 18,000 teu-plus ULCVs, according to Drewry.



Dockers strike disrupts Spanish ports and trade routes. By Sarah White and Angus Berwick. Reuters [Online]. 5 June 2017. Available from: http://uk.reuters.com/article/us-spain-ports-idUKKBN18W1SF Some of Spain's biggest port terminals came to a standstill on Monday as shipping companies redirected cargos to avoid a dockers' strike.

ESPO Conference 2017 inspires European ports on their way to decarbonisation. *European Sea Ports Organisation (ESPO)* [Online]. 6 June 2017. Available from: http://www.espo.be/news/espo-conference-2017-inspires-european-ports-on-th On 1 and 2 June, the European port industry gathered in Barcelona for ESPO's annual conference entitled "Ports in a changing Climate, a Changing world".

Is 24-hour port operation possible in Nigeria? By Oluwakemi Dauda. *The Nation (Nigeria)* [Online]. 11 June 2017. Available from: http://thenationonlineng.net/24-hour-port-operation-possible-nigeria/ Mixed reactions have greeted the Acting President, Prof Yemi Osinbajo's Executive Order for 24-hour operation at the nation's sea ports.

Mayors Sign Pact To Set Goals For Emissions-Free Ports Of Los Angeles, Long Beach. CBS Los Angeles [Online]. 12 June 2017. Available from: http://losangeles.cbslocal.com/2017/06/12/mayors-sign-pact-zero-emissions-los-angeles-long-beach-ports/ The mayors of Los Angeles and Long Beach Monday signed a pact that sets clean-air goals for their ports, reaffirming their commitment to adopting the Paris Agreement.

Fujairah eases restrictions on tankers going to/from Qatar. By Takeo Kimagai, Sameer Mohindru, and Adal Mirza. S&P Global Platts [Online]. 12 June 2017. Available from: https://www.platts.com/latest-news/shipping/tokyo/fujairah-eases-restrictions-on-tankers-going-26751718 The port of Fujairah eased Monday its restrictions on tankers going to or arriving from Qatari ports a week after it imposed a blanket ban following the UAE's ending of diplomatic ties and closing of all borders with Qatar, a market source told S&P Global Platts.

Qatar ships cargo via Oman to bypass Gulf restrictions. BBC News [Online]. 12 June 2017. Available from: http://www.bbc.co.uk/news/world-middle-east-40248145 Restrictions. BBC News [Online]. 12 June 2017. Available from: http://www.bbc.co.uk/news/world-middle-east-40248145 Restrictions. BBC News [Online]. 12 June 2017. Available from: http://www.bbc.co.uk/news/world-middle-east-40248145 Restrictions. BBC News [Online]. 12 June 2017. Available from: http://www.bbc.co.uk/news/world-middle-east-40248145 Restrictions and Salalah would operate three times a week.

Buenos Aires is the first Green Award port in South America. *Green Award* [Online]. 13 June 2017. Available from: http://www.greenaward.org/greenaward/703-buenos-aires-is-the-first-green-award-port-in-south-america.html Connecting Argentina to the world one of the main goals of Argentinian Government, Buenos Aires Port is the leading transshipment point for the foreign trade of Argentina.

Omani ports to help clear border blocks. By Rahul Das. *Times of Oman* [Online]. 13 June 2017. Available from: http://timesofoman.com/article/111223/Oman/Omani-ports-to-help-clear-border-blocks Saudi Arabia, Bahrain, the UAE, and Egypt announced on June 5 the severing of diplomatic ties with Qatar, according to Oman's national news agency.

It's business as usual at Hamad Port 'as the worst is over'. *Gulf Times (Qatar)* [Online]. 16 June 2017. Available from: http://www.gulf-times.com/story/553468/lt-s-business-as-usual-at-Hamad-Port-as-the-worst-is-over Qatar's main seaport shows all the signs of having weathered the storm.



Green policy declared for all ships at Mombasa port. By Philip Mwakio. Standard Digital (Kenya) [Online]. 20 June 2017. Available from:

https://www.standardmedia.co.ke/article/2001244151/green-policy-declared-for-all-ships-at-mombasa-port Ships calling at the Port of Mombasa will be compelled to switch off their diesel engines and power their vessels using electric power.

Strikes permanently move cargo from European ports. By Tomas Kristiansen.

ShippingWatch [Online]. 20 June 2017. Available from:

http://shippingwatch.com/secure/Ports/article9664968.ece The 48-hour strike alone, conducted by Spanish dockworkers last week, cost around EUR 110 million, according to numbers from the Spanish ministry for industry as reported by media including El Mundo.

Abu Dhabi takes over operating Port of Fujairah. *Gulf Times (Qatar)* [Online]. 20 June 2017. Available from: http://www.gulf-times.com/story/553951/Abu-Dhabi-takes-over-operating-Port-of-Fujairah Abu Dhabi Ports has signed a 35-year concession to develop and manage the Port of Fujairah, the state-owned company said on Tuesday, two months after Dubai-owned DP World's contract ended there.

APM Terminals on layoffs: Conflict has cost one in five containers.

By Louise Vogdrup-Schmidt. ShippingWatch [Online]. 20 June 2017. Available from: http://shippingwatch.com/Ports/article9665914.ece Tuesday's announcement that 160 employees will be axed at APM Terminals in Gothenburg was the only option for moving on from the conflict which has cost the terminal company customers as well as revenue.

Ghana is operating a double window at the ports - GPHA. GhanaWeb [Online]. 20 June 2017. Available from: http://www.ghanaweb.com/GhanaHomePage/business/Ghanais-operating-a-double-window-at-the-ports-GPHA-550473 The Director General of the Ghana Ports and Harbours Authority (GPHA), Paul Ansah has made a startling revelation that the country is operating a double window at the country's ports contrary to the planned single window platform.

Campaign to highlight the importance of region's ports. *ITV News (UK)* [Online]. 26 June 2017. Available from: http://www.itv.com/news/granada/update/2017-06-26/campaign-to-highlight-the-importance-of-regions-ports/ A new campaign begins today to highlight the importance of UK ports to the economy, including those in the north west.

Evergreen Line's *Ever Sigma* delivers port of Los Angeles' 9 millionth TEU, setting a new 12-month container throughput record for a Western Hemisphere seaport. *Port of Los Angeles* [Online]. 23 June 2017. Available from:

https://www.portoflosangeles.org/newsroom/2017_releases/news_062317_9_millionth_TEU.asp "Nine million TEUs is a major milestone for Los Angeles, and it's only fitting that Evergreen Line, a longstanding customer, discharged the box that set this new Western Hemisphere record," said Port Executive Director Gene Seroka.

Port of Los Angeles Reaches 9 Million TEU

Benchmark

Touted sea change in Indonesia shipping network may hit choppy waters.

By Eveline Danubrata and Cindy Silviana. Reuters [Online]. 23 June 2017. Available from: http://www.reuters.com/article/us-indonesia-ports-idUSKBN19E0AV With its towering new cranes and wharves that can handle some of the world's biggest ships, Indonesia's main international port has been shaking off its reputation for inefficiency and congestion with a \$2.5 billion upgrade.



Kiel's new wastewater reception facility. *Baltic Transport Journal* [Online]. 27 June 2017. Available from: http://www.baltictransportjournal.com/maritime/kiel-s-new-wastewater-reception-facility,3292.htm The EUR 1.8 mln investment came online at the Ostseekai Cruise Terminal on June 14th, increasing the port's reception capacity tenfold to 300 m3/hour.

Ports are ready to facilitate pathway to zero-emission shipping. *Green4Sea* [Online]. 26 June 2017. Available from: http://www.green4sea.com/ports-are-ready-to-facilitate-pathway-to-zero-emission-shipping/ The International Association of Ports and Harbors (IAPH) announced that it actively supports the development of a comprehensive global strategy on the reduction of greenhouse gas (GHG) emissions both from land-based and maritime sources, in line with the Paris climate goals.

Port policies. Pan European Networks [Online]. 26 June 2017. Available from: http://www.paneuropeannetworks.com/government/port-policies/. The secretary general of the European Sea Ports Organisation, Isabelle Ryckbost, discusses the challenges for Europe's ports

Uncertainty trails West African seaport projects. By Sulaimon Salau. *Guardian (Nigeria)* [Online]. 28 June 2017. Available from: https://guardian.ng/business-services/uncertainty-trails-west-african-seaport-projects/ Recent reports by a shipping consultancy firm, Drewry, has revealed that most port projects across the West African region are now in uncertain waters amid a change in the location and nature of transshipment hubs serving the market.

Antwerp start-up T-Mining develops Blockchain solution for safe, efficient container release. Port of Antwerp [Online]. 28 June 2017. Available from: http://www.portofantwerp.com/en/news/antwerp-start-t-mining-develops-blockchain-solution-safe-efficient-container-release T-Mining is currently working on a pilot project that will make container handling in the port of Antwerp more efficient and secure.

RECYCLING OF SHIPS

The ups and downs of container vessel scrapping as charter rates rise and fall. By Mike Wackett. *The Loadstar* [Online]. 14 June 2017. Available from: https://theloadstar.co.uk/ups-downs-container-vessel-scrapping-charter-rates-rise-fall/ Alphaliner recently downgraded its projection for containership demolitions this year after an improvement in charter hire rates coincided with a dip in steel scrap prices.

Green opportunity in ship breaking. By Margrete Auken and Martin Siecker. *EurActiv* [Online]. 20 June 2017. Available from: http://www.euractiv.com/section/economy-jobs/opinion/green-opportunity-in-ship-breaking/ Green MEPs and the European Economic and Social Committee (EESC) see opportunities arising from the rapid contraction and consolidation of the European oil and gas industry where others might see only obstacles, write Margrete Auken and Martin Siecker.



REGULATIONS

New shipping fuel regulation set to hit commodities. By Emiko Terazono and Neil Hume. Financial Times [Online]. 31 May 2017. Available from: https://www.ft.com/content/d0ae63c4-452f-11e7-8519-9f94ee97d996 Emissions cap threatens to increase prices of oil products and raise freight rates.

Ballast Water Management Convention to Be Postponed? World Maritime News [Online].

1 June 2017. Available from: http://worldmaritimenews.com/archives/221591/ballast-water-management-convention-to-be-postponed/ However, a number of administrations have co-sponsored a proposal to the International Maritime Organization (IMO) that could delay the requirements for fitting ballast water treatment systems on existing vessels until 2019, North P&I Club informs.

Shipping should have raised its ballast concerns years ago.

Ballast Water Treatment Technology [Online]. 5 June 2017. Available from: http://www.ballastwatermanagement.co.uk/news/view,shipping-should-have-raised-its-ballast-concerns-years-ago_47949.htm Intercargo's publication (BMW legislation implementation: Possibilities and impossibilities; 25 April 2017) points out the various difficulties and complications of retrofitting bulk carriers with ballast water management systems (BWMSs), as required by the IMO and the United States Coast Guard.

Shipowners encourage EU-China leadership in shaping IMO CO2 strategy.

European Community Shipowners' Associations (ECSA) [Online]. 7 June 2017. Available from: http://www.ecsa.eu/9-latest-news/310-shipowners-encourage-eu-china-leadership-in-shaping-imo-co2-strategy Following the decision of the United States to withdraw from the Paris Climate Agreement, the European Community Shipowners' Associations (ECSA) and the International Chamber of Shipping (ICS) encourage the intentions of the European Union and the People's Republic of China to intensify cooperation in achieving a global climate deal for shipping.

Better ballast biosecurity will help protect Great Barrier Reef? Government of Australia [Online]. 7 June 2017. Available from: http://minister.agriculture.gov.au/joyce/Pages/Media-Releases/ballast-biosecurity-gbr.aspx The protection of Australia's marine environment, Great Barrier Reef and \$2.8 billion fisheries and aquaculture industries from foreign pests will be enhanced with the Coalition Government's ratification of the International Convention for the Control of Ship's Ballast Water and Sediment tonight in London.

MEPC 71 will be decision time for tankers. By Paul Gunton. Tanker Shipping & Trade [Online]. 6 June 2017. Available from: http://www.tankershipping.com/news/view,mepc-71-will-be-decision-time-for-tankers_47979.htm Chemical tanker owners are waiting for the outcome of the next IMO Marine Environment Protection Committee meeting (MEPC 71) in July before deciding when to fit ballast water management systems (BWMSs), according to Xavier Duval, business director at French water treatment specialist Bio-UV.

Inaugural Meeting of the Arctic Shipping Best Practices Information Forum.

Protection of the Arctic Marine Environment (PAME) [Online]. 6 June 2017. Available from: http://www.pame.is/index.php/shortcode/blog/item/60-inaugural-meeting-of-the-arctic-shipping-best-practices-information-forum The Forum has been established by the eight Arctic States (Canada, the Kingdom of Denmark, Finland, Iceland, Norway, the Russian Federation, Sweden and the United States) to help raise awareness and to promote the effective implementation of the International Maritime Organization's International Code for Ships Operating in Polar Waters (Polar Code), a mandatory international framework that increases the safety of ship operations and mitigate the impact on the people and the vulnerable environment in Polar waters.



Natural Gas as a Transportation Fuel and IMO - MARPOL's Annex VI. By William P. Doyle, Commissioner, U.S. Federal Maritime Commission. *Maritime Logistics Professional* [Online]. 6 June 2017. Available from: http://www.maritimeprofessional.com/blogs/post/natural-gas-as-atransportation-fuel-and-imo--marpols-annex-vi-15217 The International Maritime Organization's (IMO) Marine Environment Protection Committee (MEPC) will meet July 3-7, 2017, in London, where the January 1, 2020 implementation of the .50 percent m/m (mass by mass) global sulfur content limit for shipboard fuel oil will be discussed.

New code to certify unmanned vessels announced. Lloyd's Register [Online]. 13 June 2017. Available from: http://www.lr.org/en/news-and-insight/news/new-code-to-certify-unmanned-vessels-announced.aspx Lloyd's Register has today launched the LR Unmanned Marine Systems Code, a goal-based code that takes a structured approach to the assessment of unmanned marine systems (UMS) against a set of safety and operational performance requirements.

MARPOL Annex V – the international convention banning the discharge of plastic and garbage from ships. *Gard* [Online]. 13 June 2017. Available from: http://www.gard.no/web/updates/content/23504095/marpol-annex-v-the-international-convention-banning-the-discharge-of-plastic-and-garbage-from-ships This is our third and final article in our series focussing on the growing problem of plastics in the oceans.

Amendments to SOLAS2020 reflect 20-year industry cooperation for greater safety. By Nikos Späth. *DNV GL* [Online]. 13 June 2017. Available from: https://www.dnvgl.com/news/amendments-to-solas2020-reflect-20-year-industry-cooperation-for-greater-safety-94240 MO's Marine Safety Committee (MSC) adopted amendments to SOLAS2020 that raise the damage stability requirements for passenger vessels in the event of flooding caused by a collision.

BIMCO general secretary queries compliance on sulphur cap. By Paul Fanning.

Marine Propulsion & Auxiliary Machinery [Online]. 14 June 2017. Available from:

http://www.mpropulsion.com/news/view,bimco-general-secretary-queries-compliance-on-sulphur-cap_48088.htm Lars-Robert Pedersen, the general secretary of shipping association BIMCO has expressed doubts about the likelihood of compliance with the 2020 global sulphur cap.

Maritime Transport: Commission welcomes international agreement to increase the safety of passenger ships. European Commission [Online]. 16 June 2017. Available from: https://ec.europa.eu/transport/modes/maritime/news/2017-06-16-maritime-transport-commission-welcomes-international-agreement_en The European Commission welcomes the international agreement adopted this week within the International Maritime Organisation (IMO) on setting up more stringent rules on the safety of passenger ships.

IMCA identifies ballast challenge for offshore support vessels. Offshore Support Journal [Online]. 21 June 2017. Available from: http://www.osjonline.com/news/view,imca-identifies-ballast-challenge-for-offshore-support-vessels_48165.htm With the Ballast Water Management Convention entering into force on 8 September 2017, offshore support vessels (OSVs) face some specific challenges when considering suitable ballast water management systems (BWMSs), says Mark Ford, technical manager at the International Marine Contractors Association (IMCA).



IMO meeting considers flashpoint and other safety implications of 0.50% bunker fuel sulphur limit. International Bunker Industry Association (IBIA) [Online]. 20 June 2017. Available from: http://ibia.net/imo-meeting-considers-flashpoint-and-other-safety-implications-of-0-50-bunker-fuel-sulphur-limit/ IBIA contributed to a discussion at the International Maritime Organization (IMO) last week regarding the potential impact on ship safety associated with meeting demand for fuels complying with the 0.50% sulphur limit that is due to take effect on 1 January 2020.

Sulphur cap conference highlights daunting challenges. *The Motorship* [Online]. 20 June 2017. Available from: http://www.motorship.com/news101/regulation-and-classification/sulphur-cap-conference-highlights-daunting-challenges The availability of low-sulphur fuel and the need for consistent enforcement were identified as key issues during class society DNV GL's 'Beyond 2020' conference at Nor Shipping last month, which explored industry readiness for IMO's global sulphur cap.

Many Players Expecting Noncompliance With 2020 Regs, Poll Suggests. Ship & Bunker [Online]. 27 June 2017. Available from: https://shipandbunker.com/news/emea/553326-many-players-expecting-noncompliance-with-2020-regs-poll-suggests When asked about how operators and owners would comply with the new rules set to come into force in 2020, 35 percent of respondents felt there would be noncompliance.

Jamaica Accedes To The Maritime Labour Convention. *The Gleaner (Jamaica)* [Online]. 27 June 2017. Available from: http://jamaica-gleaner.com/article/shipping/20170627/jamaica-accedes-maritime-labour-convention On June 14, 2017, Jamaica presented its instrument of accession to the Maritime Labour Convention, 2006 (MLC) commonly known as the 'Seafarers' Bill of Rights'.

Ballast Water Convention Fate in the Balance - Coldharbour CEO. By Michelle Howard. *Maritime Logistics Professional* [Online]. 28 June 2017. Available from: https://www.maritimeprofessional.com/news/ballast-water-convention-fate-balance-306810
Delegates at the IMO's Marine Environment Protection Committee 71, due to gather in London during the first week of July, may well have the last chance to ensure that the long-delayed Ballast Water Convention is implemented, as intended, in an orderly fashion when ships undergo their special surveys, once every five years.

Blog attracts support opposing a delay to compliance. By Paul Gunton.

Ballast Water Treatment Technology [Online]. 28 June 2017. Available from:

http://www.ballastwatermanagement.co.uk/news/view,blog-attracts-support-opposing-a-delay-to-compliance_48255.htm Some members of BWTT's LinkedIn group are showing support for views expressed earlier this month opposing plans to introduce a two-year delay to compliance dates during next week's Marine Environment Protection Committee meeting (MEPC 71).



SEAFARERS

National Bank of Fujairah enhances support for seafarers across the UAE. Al Albawaba (Jordan) [Online]. 30 May 2017. Available from: http://www.albawaba.com/business/pr/national-bank-fujairah-enhances-support-seafarers-across-uae-980288 National Bank of Fujairah (NBF) PJSC today announced the donation of AED 150,000 to Mission to Seafarers (MtS), a charitable initiative dedicated to safeguarding the welfare of seafarers across the UAE and alleviating the hardships these endure at sea.

Portside: The need for seafarer welfare services grows with Savannah ports. By Mary Carr Mayle. Business in Savannah (US) [Online]. 1 June 2017. Available from: http://businessinsavannah.com/bis/2017-06-02/portside-need-seafarer-welfare-services-grows-savannah-ports As the Port of Savannah continues to get busier, it's a logical follow that the fledgling Savannah Port Welfare Committee is seeing an increased need to reach out to the approximately 70,000 seafarers who call on the port annually.

Task force for seafarers. The Hindu (India) [Online]. 4 June 2017. Available from: http://www.thehindu.com/todays-paper/tp-miscellaneous/tp-others/task-force-for-seafarers/article18716999.ece Representatives of Indian shipping associations have come forward to form a task force to work towards increasing the global share of Indian seafarers, the Maritime Association of Shipowners Ship managers and Agents (MASSA) has said.

Students Join Seafarers' House to Celebrate International Day of the Seafarer.

Maritime Executive [Online]. 7 June 2017. Available from: http://maritime-executive.com/pressrelease/students-join-seafarers-house-to-celebrate-international-day-of-the-seafarer Each year, more than 12 billion tons of goods are shipped by 1.5 million seafarers worldwide.

LPG carrier crew send out 'mayday'. By Jonathan Boonzaier. *TradeWinds* [Online]. 7 June 2017. Available from: http://www.tradewindsnews.com/gas/1274884/lpg-carrier-crew-send-out-mayday Seafarers on an LPG carrier marooned off Djibouti appear to have been caught up in a tug-of-war between the vessel's owner and charterer over a part-discharged cargo.

Greater transparency needed to improve human rights in shipping. By Sam Chambers. Splash 24/7 [Online]. 12 June 2017. Available from: http://splash247.com/greater-transparency-needed-improve-human-rights-shipping/ The opaque nature of shipping is leading to massive exploitation and human rights abuses with a real risk that many seafarers are now essentially enslaved.

Case study: Human Impact of Denial of Crew Wages to Seafarers. Human Rights at Sea (HRAS) [Online]. 9 June 2017. Available from: https://www.humanrightsatsea.org/case-study-human-impact-of-denial-of-crew-wages-to-seafarers/ Human Rights at Sea supported by the NGO Justice Upheld has today published a detailed investigative report and case study into the matter of Indian and Sri Lankan crew of the MV Sharjah Moon IMO 7516503, some of whom have been denied payment of owed wages for in excess of 16 months and consequently, remain in the UAE unable to return home to their families.

Alco Shipping dispute crew abandonment claims. Splash 24/7 [Online]. 14 June 2017. Available from: http://splash247.com/alco-shipping-disputes-crew-abandonment-claims/ A few weeks after the case of four ships abandoned in the UAE waters, the Middle Eastern company Alco Shipping Services has hit the headlines again for a tanker allegedly arrested in the Mediterranean.



Keeping seafarers sane. By Michael Grey. Seatrade Maritime News [Online]. 15 June 2017. Available from: http://www.seatrade-maritime.com/news/europe/keeping-seafarers-sane.html "Seafarers required - preference will be given to stolid, pragmatic anti-social candidates who can demonstrate a lack of imagination".

Philippines: Abducted Crewman Escapes. *Maritime Executive* [Online]. 14 June 2017. Available from: http://maritime-executive.com/article/philippines-abducted-crewman-escapes ReCAAP has reported that one of the crew of the abducted fishing vessel *Ramona 2* has escaped after five months of captivity.

Nautilus protests over 'shocking' treatment of detained seafarers. Nautilus International [Online]. 18 June 2017. Available from: https://nautilusint.org/en/what-we-say/nautilus-news/nautilus-protests-over-shocking-treatment-of-detained-seafarers/. Nautilus International has written to the Angolan ambassador to the UK to protest about the unjust treatment of the crew of an offshore support vessel detained in the port of Soyo.

Eastern Cape province to host Seafarers Day 2017 celebrations.

South African Maritime Safety Authority (SAMSA) [Online]. 20 June 2017. Available from: http://www.samsa.org.za/press-room/news/eastern-cape-province-host-seafarers-day-2017-celebrations The Eastern Cape, South Africa's 2nd largest province by coastline along the Indian Ocean, will be the venue for this year's local celebrations of the international Seafarers Day on Sunday, June 25.

UK P&I Club continues to invest in seafarer welfare. *Sailors' Society* [Online]. 21 June 2017. Available from: https://www.sailors-society.org/about-us/press-room/seafarer-welfare/ One of five sections in the global maritime charity's Wellness at Sea coaching programme, the Emotional Wellness training aims to improve emotional well-being through early identification of mental health issues and to enable seafarers to handle challenging situations at sea.

Chaplain dares to drop for charity. Sailors' Society [Online]. 21 June 2017. Available from: https://www.sailors-society.org/about-us/press-room/phis-abseil/ Bridgend based chaplain, Rev Phil Denyer, dared to face his fear of heights at the weekend and take on Britain's highest freefall abseil from the UK's tallest structure in aid of maritime welfare charity, Sailors' Society.

Recognizing this Special Profession. By Simon Bennett, Director Policy & External Relations, International Chamber of Shipping. *Maritime Executive* [Online]. 23 June 2017. Available from: http://maritime-executive.com/editorials/recognizing-this-special-profession
It goes without saying that the success of the global shipping industry, and its facilitation of world trade and sustainable development, is very much dependent on the seafarers it employs, about 1.7 million of whom are currently working in international trades.

Fundraising shows #SeafarersMatter to IMO employees. *Mission to Seafarers* [Online]. 22 June 2017. Available from: https://www.missiontoseafarers.org/news/fundraising-shows-seafarers-matter-to-imo-employees With the International Maritime Organization (IMO)'s Day of the Seafarer 2017 rapidly approaching, a team of six IMO staff members have cycled 100km around London to raise money for the Mission to Seafarers, demonstrating their commitment to this year's theme: 'Seafarers Matter'.

IMO vows to crackdown on seafarer abandonment. By Sam Chambers. *Splash* 24/7 [Online]. 26 June 2017. Available from: http://splash247.com/imo-vows-crackdown-seafarer-abandonment/ The secretary-general of the International Maritime Organization (IMO) Kitack Lam has vowed to crack down on owners who abandon crews.



Taking care of seafarers' welfare. By Melissa Lin. *Straits Times* [Online]. 26 June 2017. Available from: http://www.straitstimes.com/singapore/taking-care-of-seafarers-welfare
To commemorate the Day of the Seafarer, which is today, the Maritime and Port Authority of Singapore (MPA) took The Sunday Times on a tour of the facilities and services available to these transient workers.

Government of Canada celebrates the eighth annual Day of the Seafarer. Government of Canada [Online]. 24 June 2017. Available from: https://www.canada.ca/en/transport-canada/news/2017/06/government of canadacelebratestheeighthannualdayoftheseafarer.html Seafarers play an important role in enabling the safe and efficient movement of Canada's international maritime trade that is critical to the success of our economy.

Going to sea—a decision of his own. By Brenda V.Pimentel. *Manila Times* [Online]. 24 June 2017. Available from: http://www.manilatimes.net/going-sea-decision/334546/
Born into a family actively involved in the maritime industry, Capt. Nino Elson Orola Salabas as a young boy found his feet into seafaring as he regularly encountered merchant marine students in the family-run maritime school, VMA Global College in Bacolod.

The Modern Face of Crewing Standards. By Marck Cameron, Executive Vice President and COO, Ardmore Shipping. *Maritime Executive* [Online]. 23 June 2017. Available from: http://maritime-executive.com/editorials/the-modern-face-of-crewing-standards With the shipping industry in the throes of some of the biggest changes it has ever seen, the profession of crewing is also changing.

Expert calls for security of nation's coastal line. *Pulse.Ng (Nigeria)* [Online]. 27 June 2017. Available from: http://www.pulse.ng/local/maritime-expert-calls-for-security-of-nation-s-coastal-line-id6902946.html A Maritime expert, Retired Rear Adm. Godswill Ombo, on Monday said the security of the nation's coastal line was paramount in protecting the economy.

The religious lives of international seafarers. Cardiff University [Online]. 23 June 2017. Available from: http://www.cardiff.ac.uk/news/view/792030-the-religious-lives-of-international-seafarers The religious and spiritual experiences of seafarers, and ministry amongst port chaplains, will be explored in a new project by Cardiff University's Seafarers International Research Centre (SIRC).

Why every tanker technical department needs to rethink training. By Phil Belcher, Marine Director, Intertanko. *Tanker Shipping & Trade* [Online]. 27 June 2017. Available from: http://www.tankershipping.com/news/view,why-every-tanker-technical-department-needs-to-rethink-training_48241.htm On 25 June, the international community celebrated the Day of the Seafarer - it is a day when our entire industry takes a pause to think of the seafarers who are currently serving on the World's fleet.

Fed Gov Urged to Intervene as Maritime Workers Paid just \$120pw while Vessel Languishes. Maritime Union of Australia (MUA) [Online]. 29 June 2017. Available from: <a href="http://www.mua.org.au/fed_gov_urged_to_intervene_as_maritime_workers_paid_just_120_per_week_while_vessel_languishes_at_victorian_port_for_two_months_the Australian Government has been urged to intervene to identify the owner of 36-year-old supply ship MV Yarabah that has spent almost two months languishing at Port Welshpool, in the South Gippsland region of Victoria.



SEARCH AND RESCUE

Russian-Norwegian rescue exercises underway in Barents Sea. *The Arctic (Russia)* [Online]. 30 May 2017. Available from: http://arctic.ru/international/20170530/621749.html Search and rescue units of the Russian Northern Fleet are taking part in the drills during which the sides will team up for the first time ever to rehearse an oil spill emergency cleanup operation, RIA Novosti reported citing the Northern Fleet's official spokesman Captain First Class Vadim Serga.

Indian Coast Guard Rescues Dredger Crew. Maritime Executive [Online]. 5 June 2017. Available from: http://maritime-executive.com/article/indian-coast-guard-rescues-dredger-crew On Saturday, the Indian Coast Guard rescued 27 crew members of the dredger Ibis southwest of Mangalore Old Port in Karnataka.

Pacific endorses plan to improve SAR response. Radio New Zealand [Online]. 5 June 2017. Available from:

http://www.radionz.co.nz/international/programmes/datelinepacific/audio/201846215/pacific-endorses-plan-to-improve-sar-response The Pacific Search and Rescue Steering Committee developed a strategic plan during the workshop to run through to 2021.

Mass Rescue Conference Highlights Capability Gaps and Importance of Planning. International Maritime Rescue Federation [Online]. 16 June 2017. Available from: https://www.international-maritime-rescue.org/10-news/2478-mass-rescue-conference-highlights-capability-gaps-and-importance-of-planning More must be done to emphasise the importance of maritime mass rescue operation planning and to fill global gaps in search and rescue (SAR) response capability.

EU: Shifting Rescue to Libya Risks Lives. *Human Rights Watch (HRW)* [Online]. 19 June 2017. Available from: https://www.hrw.org/news/2017/06/19/eu-shifting-rescue-libya-risks-lives Libyan forces have engaged in reckless conduct during recent rescue operations that endangered people being rescued in international waters in the Mediterranean, Human Rights Watch said today.

SHIPBUILDING AND SHIPREPAIR

France's Macron seeks review of STX shipyard sale to Fincantieri. By Guillaume Frouin. Reuters [Online]. 31 May 2017. Available from: http://www.reuters.com/article/us-stx-m-a-fincantieri-idUSKBN18R2OG French President Emmanuel Macron said on Wednesday he wanted to review the terms of a recent deal to sell a large stake in the STX France shipyard to Italian group Fincantieri.

Rolls-Royce unveils new unified ship design. Rolls-Royce [Online]. 30 May 2017. Available from: https://www.rolls-royce.com/media/press-releases/yr-2017/30-05-2017-rr-unveils-new-unified-ship-design.aspx Rolls-Royce has revealed a radical overhaul of its vessel design philosophy which aims to optimise construction and operations without reducing the use of space on board.

Sovcomflot provides detailed characteristics of LNG tanker *Christophe de Margerie*. *Port News* [Online]. 6 June 2017. Available from: http://en.portnews.ru/news/240174/
The naming ceremony for the Arc7 ship was held on 3 June 2017 in the presence of Russian President Vladimir Putin at port Bronka (Saint-Petersburg) in the framework the St. Petersburg International Economic Forum.



Philly Shipyard starts building LNG-ready containerships. LNG World News [Online]. 12 June 2017. Available from: http://www.lngworldnews.com/philly-shipyard-starts-building-lng-ready-containerships/ Philly Shipyard, the U.S. unit of Philly Shipyard ASA, has begun construction of a new fleet of LNG-ready containerships for the US-Hawaii trade route.

SHIPPING

DNV GL looks to a greener 2050 with greenhouse gas model for shipping. By Nikos Späth. DNV GL [Online]. 1 June 2017. Available from: https://www.dnvgl.com/news/dnv-gl-looks-to-a-greener-2050-with-greenhouse-gas-model-for-shipping-93691 DNV GL has published a report assessing the potential for greenhouse gas (GHG) emissions reduction from shipping towards 2050, based on a new computational model.

Low Carbon Shipping Towards 2050. DNV GL [Online]. May 2017. Available from: http://brandcentral.dnvgl.com/download/DownloadGateway.dll?h=BE1B38BB718539CC0AB58A5FF2EA7A8378092E52D63A591F2607A940D890EB411E1FBF4EBE2FD7CF13B18E85E0163870 Shipping will be expected to reduce GHG emissions and DNV GL is ready to assist the industry to negotiate the transition into a low carbon future.

Does Trump's Paris pullout threat matter for shipping? By Eric Martin. *TradeWinds* [Online]. 31 May 2017. Available from: http://www.tradewindsnews.com/gas/1271394/does-trumps-paris-pullout-threat-matter-for-shipping US President Donald Trump is expected to announce that the country is pulling out of the Paris climate agreement nearly eight months after it went into force.

Japanese liner shipping trio becomes ONE, ready for launch next spring.

By Mike Wackett. The Loadstar [Online]. 31 May 2017. Available from:

https://theloadstar.co.uk/japanese-liner-shipping-trio-becomes-one-ready-launch-next-spring/
The container businesses of K Line, MOL and NYK will operate under the trade name Ocean Network Express (ONE) from 1 April next year.

Shipping is an evolving opportunity. Ship Management International [Online]. 30 May 2017. Available from: http://shipmanagementinternational.com/shipping-is-an-evolving-opportunity/ Being even more customer-focused, managing costs in these tough times and looking to innovation are key components of DNV GL's strategy for growth over the next few years.

Cruise Business Roundtable: Operating to protect the environment. By Susan Parker. Cruise and Ferry [Online]. 30 May 2017. Available from: http://www.cruiseandferry.net/articles/cruise-business-roundtable-operating-to-protect-the-environment Susan Parker asks cruise line executives to share their thoughts on current and future green technology, as well as how they are meeting environmental goals and challenges.

Cargo vessels: a cleaner alternative to lorries. *Euronews* [Online]. 29 May 2017. Available from: http://www.euronews.com/2017/05/29/cargo-vessels-a-cleaner-alternative-to-lorries Cargo vessels are considered a relatively green mode of transport.

Asia accounts for 60% of seaborne trade and still growing: Stopford. By Hans Thaulow. Splash 24/7 [Online]. 1 June 2017. Available from: http://splash247.com/asia-accounts-60-seaborne-trade-still-growing-stopford/ Asia now accounts for a dominant 60% of seaborne trade, and has plenty of potential to grow, according to statistics provided by the world's most famous shipping analyst, Dr. Martin Stopford.



BOURBON and Kongsberg Maritime strengthen their collaboration in digital solutions for next generation connected vessels. *Kongsberg Maritime* [Online]. 31 May 2017. Available from: http://www.goo.gl/PCgF5R The two companies will execute joint projects to develop new ways of efficient operations in the offshore services industry, with a fast time-to market.

Chamber CEO appears on BBC Business Live. *UK Chamber of Shipping* [Online]. 24 May 2017. Available from: https://www.ukchamberofshipping.com/latest/watch-chamber-ceo-appears-bbc-business-live/ Guy Platten, CEO of the UK Chamber of Shipping, recently spoke to the BBC Business Live programme about how trade would be affected if the UK installs "hard" customs borders and why the UK government should invest in training seafarers.

'Shipping Committed to Green Growth' ICS to Tell UN Ocean Conference.

International Chamber of Shipping (ICS) [Online]. 5 June 2017. Available from: http://www.goo.gl/nHdyn2 On Tuesday 6 June, the International Chamber of Shipping (ICS) will explain that the global shipping industry is fully committed to the UN Sustainable Development Goal for the protection of the Ocean.

International Shipping Protecting the Ocean, Committed to CO₂ Reduction 2

Ten women to watch in shipping. By Lena Göthberg, Shipping Podcast. *Splash 24/7* [Online]. 5 June 2017. Available from: http://splash247.com/ten-women-watch-shipping/ The women in the shipping industry have rarely been visible, with the exception of a handful, hence the lack of role models for women entering the sector.

Are ships set for shorter lifespans? By Jason Jiang. Splash 24/7 [Online]. 6 June 2017. Available from: http://splash247.com/ships-set-shorter-lifespans/ The continued pressures in the shipping markets have triggered significant supply side adjustments; the slowdown of ordering activities and strong demolition has seen fleet growth fall to its lowest level in more than a decade.

NorShipping: It's time to get ahead of the curve. UK Chamber of Shipping [Online].
7 June 2017. Available from: https://www.ukchamberofshipping.com/latest/its-time-to-get-ahead-of-the-curve-/ Guy Platten, CEO of the UK Chamber, reflects on this year's NorShipping event in Oslo, which heralded a new era of digitalisation and ended with an unexpected wake-up call for environmentalism in shipping.

New BIMCO President sets course for digitalisation. By Leslea Petersen.

Baltic and International Maritime Council (BIMCO) [Online]. 7 June 2017. Available from:
https://www.bimco.org/news/press-releases/20170607_new-president Papagiannopoulos has set three clear themes for his two-year presidential term.

One Belt, One Road: Changes to shipping in Southeast Asia? By Andre Wheeler. Splash 24/7 [Online]. 7 June 2017. Available from: http://splash247.com/one-belt-one-road-changes-shipping-southeast-asia/ There has been much commentary surrounding the development, conception, and now the roll out of the New Silk Road (One Belt, One Road) by China.

Autonomous Vessels: Regulating the Future. By Leuen Jones, Ashfords LLP. Lexology [Online]. 6 June 2017. Available from: http://www.lexology.com/library/detail.aspx?g=0c1fe4d4-813b-4e1e-8ade-af9297aeac31 It has been said that the prevalence of Autonomous Vessels (AVs) in shipping, set to grow exponentially in the next 10 years, will be the biggest revolution in the industry since steam overtook sail-power.



Capt. Antonio M. Padrón at the WISTA-Med conference. *All About Shipping* [Online]. 6 June 2017. Available from: http://www.allaboutshipping.co.uk/2017/06/06/capt-antonio-m-padron-at-the-wista-med-conference/ The events took place in the auditorium of the Madrid Bar Association, together with the WISTA MED CONFERENCE, in addition to the X Anniversary of WISTA SPAIN.

Maersk says unable to ship Qatar bound cargo from UAE, seeks alternatives. By Jonathan Saul. Reuters [Online]. 6 June 2017. Available from: https://www.reuters.com/article/us-gulf-qatar-shipping-idUSKBN18X1YS Maersk can no longer transport goods in or out of Qatar after Arab countries imposed restrictions on trade with the tiny Gulf state and the company is looking at alternative shipping routes.

Shipping industry ponders implications of Qatar diplomatic disputes. Hellenic Shipping News [Online]. 8 June 2017. Available from: http://www.hellenicshippingnews.com/shipping-industry-ponders-implications-of-qatar-diplomatic-disputes/ Saudi Arabia, the United Arab Emirates, Egypt, Bahrain, Libya and the Maldives have severed diplomatic relations with Qatar and indicated that they plan to cut air and sea traffic with Qatar.

Qatar diplomatic crisis disrupts clean tankers' trades. By Sameer C. Mohindru. S&P Global Platts [Online]. 7 June 2017. Available from: https://www.platts.com/latest-news/shipping/singapore/analysis-qatar-diplomatic-crisis-disrupts-clean-26749020 The ongoing diplomatic impasse in the Middle East is causing serious disruptions in the shipping of clean products, with companies across Asia downsizing their parcels for loading in single ports and the possibility that owners may seek premium for Qatar loadings, market participants in Singapore, Dubai, and Tokyo said on Wednesday.

CMA CGM improves **CO2** performance by 4% in 2016. *CMA CGM* [Online]. 6 June 2017. Available from: https://www.cma-cgm.com/news/1643/cma-cgm-improves-co2-performance-by-4-in-2016 As the planet celebrates the World Environment Day, CMA CGM Group, a leading worldwide shipping group, reiterates its commitments on the fight against global warming by improving the performance of its ships.

Shipping facing a more serious shortage of senior officers than it expects.

By Marcus Hand. Seatrade Maritime News [Online]. 9 June 2017. Available from:

http://www.seatrade-maritime.com/news/asia/shipping-facing-a-more-serious-shortage-of-senior-officers-than-it-expects.html Shipping faces a more serious shortage in senior officers in the future than it is prepared for warns Mark Charman, ceo of Faststream Recruitment Group.

Unmanned Ships on the Horizon. *Maritime Executive* [Online]. 8 June 2017. Available from: http://www.maritime-executive.com/features/unmanned-ships-on-the-horizon With a new testbed and several research projects underway, autonomous shipping is one step closer to becoming a reality.

Cyprus Minister calls on EU 28 to promote the competitiveness of European shipping industry. Cyprus News Agency [Online]. 8 June 2017. Available from: http://www.cna.org.cy/WebNews-en.aspx?a=744830846c7547d5beacbbf7bd998cd8
Cyprus' Transport Minister Marios Dimitriades called today on his EU counterparts to promote concrete actions to strengthen the competitiveness of the European shipping industry, enshrined in principles ensuring a level playing field in the ongoing talks for greenhouse gas reduction within the International Maritime Organization.



Shipping struggles to get to grips with Qatar crisis. By Dale Wainwright. *TradeWinds* [Online]. 8 June 2017. Available from:

http://www.tradewindsnews.com/tankers/1277046/shipping-struggles-to-get-to-grips-with-qatar-crisis Shipping was still struggling to get to grips with the crisis surrounding Qatar four days after diplomatic links were cut by several of its neighbours.

EU endorses maritime commitment to Paris Agreement. By Anastassios Adamopoulos. *Lloyd's List* [Online]. 8 June 2017. Available from:

https://lloydslist.maritimeintelligence.informa.com/LL108578/EU-endorses-maritime-commitment-to-Paris-Agreement European Union governments reaffirmed the maritime industry's commitment to the Paris Agreement and called for the alignment of the EU's Monitoring, Reporting, Verification regulation with that of the International Maritime Organization's, once the latter is in place.

Passing down the knowledge. By Michael Grey. Lloyd's List [Online]. 8 June 2017. Available from: https://lloydslist.maritimeintelligence.informa.com/LL108572/Passing-down-the-knowledge Seafarers are brought up to improvise, to employ resilience and common sense, but this seems to be rather deplored by those producing the regulations.

World's first class developed electronic certificate service "ClassNK e-Certificate" begins operations. ClassNK [Online]. 12 June 2017. Available from: https://www.classnk.or.jp/hp/en/hp_news.aspx?id=2417&type=press_release&layout=1 Leading classification society ClassNK will commence operation of the world's first comprehensive electronic certificate service for classification and statutory certificates from 15 June 2017.

Making sense of low sulphur fuel terminology: ULSFO RM/DM and VLSFO RM/DM. Hellenic Shipping News [Online]. 12 June 2017. Available from: http://www.hellenicshippingnews.com/making-sense-of-low-sulphur-fuel-terminology-ulsfo-rmdm-and-vlsfo-rmdm/ The arrival in the market of marine fuels meeting a 0.10% sulphur limit that were not marine gas oils (MGO) has led to a raft of names, some of which have proven to be misleading.

Sovcomflot boss Sergey Frank targets growing LNG demand. By Karen Thomas. LNG World Shipping [Online]. 12 June 2017. Available from: http://www.lngworldshipping.com/news/view,sovcomflot-boss-sergey-frank-targets-growing-lng-demand_48002.htm President and chief executive Sergey Frank ponders Arctic opportunities and small-scale investment and explains why he has faith in LNG as the marine fuel of the future.

IBM: How we can save shipping billions of euros. By Søren Pico. ShippingWatch [Online]. 9 June 2017. Available from: http://shippingwatch.com/secure/Services/article9639294.ece Maersk Line and IBM are completing their so-called blockchain solution aimed at reducing the shipping sector's reliance on documents.

Shipowning Nations And The Three Card Trick. Clarksons Research [Online]. 9 June 2017. Available from: https://clarksonsresearch.wordpress.com/2017/06/09/shipowning-nations-and-the-three-card-trick/ In the 'Three Card Trick' or game of 'Find The Lady' beloved by hustlers everywhere, the aim is to track the movement of one item amongst three, but blink and you'll miss it!



Royal Caribbean's *Symphony of the Seas* completes next phase of construction as she was floated out of dry dock. *Royal Caribbean Press Centre* [Online]. 9 June 2017.

Available from: http://www.goo.gl/oPgZ1i The newest member of Royal Caribbean International's Oasis class of ships, *Symphony of the Seas*, is now one step closer to full completion as her April 2018 debut approaches. Symphony of the Seas float out

What Will Power Shipping in 2050? By Leah Kinthaert. *Knect365 Maritime* [Online]. 4 June 2017. Available from: https://knect365.com/techandcomms/article/ad2c7853-2d17-4d19-b6ac-e3104187c528/what-fuel-will-the-shipping-industry-use-in-2050 In the KNect365 blog post last year: "12 experts evaluate the shipping industry's potential to go green" we discussed shipping's potential to meet the IMO's 2020 sulphur cap.

The Electric, Driverless Revolution Is About to Hit the High Seas. By Jess Shankleman. Bloomberg [Online]. 12 June 2017. Available from: https://www.bloomberg.com/news/articles/2017-06-12/the-electric-driverless-revolution-is-about-to-hit-high-seas It's not just in Google laboratories that the revolution in electric, driverless transportation is gathering pace: a Norwegian shipping company is aiming to be able to deliver cargoes by sea on unmanned vessels from 2020.

Climate change protest targets Carnival. By Eric Martin. *TradeWinds* [Online]. 13 June 2017. Available from: http://www.tradewindsnews.com/passengerships/1280687/climate-change-protest-targets-carnival Two environmental groups staged a protest in Seattle alleging that Carnival runs a fleet of "dirty ships" because of the use of heavy fuel oils.

ABS Solidifies Industry Leadership in Greece by Opening its Global Ship Systems Center and Establishing Hellenic Technical Committee. ABS (American Bureau of Shipping)
[Online]. 12 June 2017. Available from: https://ww2.eagle.org/en/news/press-room/2017/ABS-Solidifies-Industry-Leadership-in-Greece-by-Opening-its-Global-Ship-Systems-Center-and-Establishing-Hellenic-Technical-Committee.html "This cutting-edge facility brings together industry-recognized technical leaders to support clients throughout the entire lifecycle of their assets," said ABS Chairman, President and CEO Christopher J. Wiernicki.

Safety and Shipping Review 2017. Allianz Global Corporate & Specialty [Online].

13 June 2017. Available from: http://www.agcs.allianz.com/insights/white-papers-and-case-studies/safety-and-shipping-review-2017/ This review focuses on key developments in maritime safety and analyzes shipping losses (of over 100 gross tons) during the 12 months prior to December 31, 2016. It also identifies some of key risk management challenges the industry faces moving forward. Report

Ship-to-Ship LNG Bunkering Service Started in the Port of Zeebrugge. Port of Zeebrugge [Online]. 14 June 2017. Available from: https://www.portofzeebrugge.be/en/news-events/ship-ship-lng-bunkering-service-started-port-zeebrugge The bunkering vessel ENGIE Zeebrugge performed in the port of Zeebrugge, Belgium, its first deliveries of LNG (liquefied natural gas) as a marine fuel to M/V AUTO ECO and M/V AUTO ENERGY, the two new gas-propelled pure car and truck carriers (PCTCs) of UECC.

Qatar Petroleum and Shell Form LNG Marine fueling venture. Shell [Online]. 13 June 2017. Available from: http://www.shell.com/media/news-and-media-releases/2017/qatar-petroleum-shell-form-Ing-marine-fueling-venture.html Qatar Petroleum's Wave LNG Solutions and Shell Gas & Power Developments B.V. (Shell) today signed a framework agreement to develop liquefied natural gas (LNG) marine fueling – or bunkering – infrastructure at strategic shipping locations across the globe.



Digitalisation in shipping: Smart digital solutions to alleviate administrative workload on crew and companies. European Community Shipowners' Associations (ECSA) [Online].

15 June 2017. Available from: http://www.ecsa.eu/9-latest-news/312-digitalisation-in-shipping-smart-digital-solutions-to-alleviate-administrative-workload-on-crew-and-companies
On the occasion of the "Digital Assembly 2017" co-organised on 15 & 16 June by the European Commission and the Maltese Presidency of the Council of the EU the European seafarers and shipowners highlight the importance that shipping is urgently better served by smart digital solutions to finally decrease the administrative burden they face.

Why has shipping got it so wrong? By Paul Slater. *Splash* 24/7 [Online]. 15 June 2017. Available from: http://splash247.com/shipping-got-wrong/ The recent spring gatherings in New York and Stanford CT produced the false view that the dry cargo markets were booming when in fact they were barely breaking even.

IEA: Qatar Sanctions May Affect Tanker Loadings. *Maritime Executive* [Online]. 14 June 2017. Available from: http://www.maritime-executive.com/article/iea-qatar-sanctions-may-affect-tanker-loadings In its latest oil market report, the International Energy Agency (IEA) warned that the ongoing embargo on Qatari shipping was causing "logistical headaches" for crude oil transportation.

Shipping in Malaysia. By Philip Teoh, Azmi & Associates. Lexology [Online]. 12 June 2017. Available from: http://www.lexology.com/library/detail.aspx?g=138addd2-0824-4f72-be71-92b2065c852b A substantial portion of Malaysian shipping serves the oil and gas sector.

India's LNG bunkering plans moving into top gear - IRClass. By Surabhi Sahu. S&P Global Platts [Online]. 15 June 2017. Available from: https://www.platts.com/latest-news/shipping/singapore/interview-indias-lng-bunkering-plans-moving-into-27845758
India's LNG bunkering plans are on a "fast track" with LNG-fueled river sea vessels and LNG refueling stations likely to emerge in the coming months, Arun Sharma, executive chairman of Indian Register of Shipping, or IRClass, a Mumbai-based globally recognized ship classification society told S&P Global Platts Tuesday.

UK Chamber president urges a step change in shipping safety. *UK Chamber of Shipping* [Online]. 15 June 2017. Available from: https://www.ukchamberofshipping.com/latest/ukchamber-president-urges-step-change-shipping-safety/ Our president Dr Grahaeme Henderson today told attendees of the UK Chamber's annual summer lunch how we can lead the way in creating a safer and more prosperous maritime sector.

Intervention to Tackle Vessel Oversupply Not Viable or Needed, Experts Agree.

Hellenic Shipping News [Online]. 15 June 2017. Available from:

http://www.hellenicshippingnews.com/intervention-to-tackle-vessel-oversupply-not-viable-or-needed-experts-agree/ A panel of shipping industry experts, including leading economist Martin Stopford, has disputed conclusions made by industry leaders at Danish Maritime Days (DMD) 2016, arguing there was no need for either market based or regulatory intervention to break a period of sustained low freight rates, erosion of asset value and oversupply.

Facing Brexit, the UK's 'island nation' dependence on shipping and seafarers is set to grow. *All About Shipping* [Online]. 19 June 2017. Available from: http://www.allaboutshipping.co.uk/2017/06/19/facing-brexit-the-uks-island-nation-dependence-on-shipping-and-seafarers-is-set-to-grow/ As the UK finally embarks on Brexit negotiations, our island nation's attention is being focused on the vital role our ports, harbours and seafarers will have to play in the future.



IMO Secretary-General Receives Message from Minister of Transport and Communication. Government of Qatar [Online]. 18 June 2017. Available from: https://mofa.gov.qa/en/all-mofa-news/details/2017/06/18/imo-secretary-general-receives-message-from-minister-of-transport-and-communication HE Secretary-General of the International Maritime Organization (IMO) Ki Tack Lim has received a message from HE Qatar's Minister of Transport and Communications Jassim bin Saif Al Sulaiti pertaining to the violations of the international maritime agreements by the United Arab Emirates, the Kingdom of Saudi Arabia and the Kingdom of Bahrain through the embargo they imposed on the Qatari navigation in contravention of maritime conventions and treaties, in particular the 1982 Convention.

Interview with Commodore Jim Scorer, Secretary-General of the International Federation of Shipmasters' Associations (IFSMA). *gCaptain* [Online]. 16 June 2017. Available from: http://gcaptain.com/interview-commodore-jim-scorer-secretary-general-of-the-international-federation-of-shipmasters-associations/ Established in 1974 to uphold International Standards of Professional Competence for Seafarers, IFSMA is a federation with a policy to ensure safe operational practices, preservation from human injury, protection of the marine environment and safety of life and property at sea.

Full text of the Vision for Maritime Cooperation under the Belt and Road Initiative.

Government of China [Online]. 20 June 2017. Available from:

http://english.gov.cn/archive/publications/2017/06/20/content_281475691873460.htm

China on June 20 released a document titled Vision for Maritime Cooperation under the Belt and Road Initiative, to synchronize development plans and promote joint actions among countries along the 21st Century Maritime Silk Road.

Real-Time Refrigerated Containers Introduced to Shipping. Port Technology International [Online]. 15 June 2017. Available from: https://www.porttechnology.org/news/industry_first_for_real_time_refrigerated_containers
Maersk Container Industry (MCI) has claimed an industry first with its Star Cool refrigerated containers after fitting them with a new embedded digital feature that offers visibility and precise knowledge of actual energy consumption.

Could bio LNG become the new fuel for shipping? By Eva Grey. Ship-Technology.Com [Online]. 21 June 2017. Available from: http://www.ship-technology.com/features/featurecould-bio-lng-become-the-new-fuel-for-shipping-5836071/ The Port of Rotterdam and the National LNG Platform are embarking on a joint study to develop liquefied natural gas from renewable resources, such as manure and sewage sludge.

"Shipping needs a new business model". By Tomas Kristiansen. ShippingWatch [Online]. 21 June 2017. Available from: http://shippingwatch.com/secure/carriers/article9667816.ece We call it realistic," said Chief Analyst Christopher Rex of Danish Ship Finance when he spoke in front of a large audience in New York this Tuesday – an audience that was hungry for good news about the shipping sector.

Regional crisis spurs Qatari ports to offer ship-to-ship bunkering: QP. By Tamsin Carlisle. S&P Global Platts [Online]. 20 June 2017. Available from: https://www.platts.com/latest-news/shipping/dubai/regional-crisis-spurs-qatari-ports-to-offer-ship-27847448 Qatar has started offering ship-to-ship fuel bunkering at its ports in response to several of its immediate neighbors seeking to isolate the small Persian Gulf state, state-owned Qatar Petroleum announced Monday.



Shipping confidence hits three-year high. By Richard Greiner. *Moore Stephens* [Online]. 20 June 2017. Available from: https://www.moorestephens.co.uk/news-views/june-2017/confidence-hits-three-year-high The average confidence level expressed by respondents to the survey was up to 6.1 out of 10.00 from the 5.6 recorded in the previous survey in February 2017.

Cruise ship fuelled by LNG while docked. *Green Port* [Online]. 20 June 2017. Available from: http://www.greenport.com/news101/lng/cruise-ship-fuelled-by-lng-while-docked Germany-headquartered AIDA Cruises will supply its newly launched cruise ship with low-emission liquefied natural gas (LNG) while she is docked in the Port of Barcelona.

Shipping Industry Unites to Propose Ambitious Co2 Reduction Objectives to Global Regulator. *International Chamber of Shipping (ICS)* [Online]. 22 June 2017. Available from: http://www.ics-shipping.org/news/press-releases/2017/06/22/shipping-industry-unites-to-propose-ambitious-co2-reduction-objectives-to-global-regulator Four major international trade associations – BIMCO, INTERCARGO, International Chamber of Shipping (ICS) and INTERTANKO – have made a joint proposal to the UN International Maritime Organization (IMO) concerning ambitious CO2 reductions by the international shipping sector, which is responsible for transporting about 90% of global trade and 2.2% of the world's annual manmade CO2 emissions.

Maritime silk road fosters 'blue partnerships'. Ecns.Cn (China News Service) [Online]. 22 June 2017. Available from: http://www.ecns.cn/2017/06-22/262475.shtml Chinese authorities Tuesday released a vision for the top-down design for advancing maritime cooperation among countries along the 21st Century Maritime Silk Road, according to Wang Hong, head of the State Oceanic Administration (SOA).

The changing tide of risk. By Carly Fields and Lara Shingles. *Baltic Briefing* [Online]. 21 June 2017. Available from: http://thebalticbriefing.com/2017/06/21/the-changing-tide-of-risk/ Many sectors of the shipping industry will continue to face overcapacity and strained financial results throughout the remainder of 2017.

Caribbean ripe for LNG bunkering as 2020 emissions cao looms: speakers. S&P Global Platts [Online]. 21 June 2017. Available from: https://www.platts.com/latest-news/shipping/houston/caribbean-ripe-for-Ing-bunkering-as-2020-emissions-21112569
The Caribbean is well positioned to move to LNG bunkering as the shipping industry seeks to comply with the new global emission cap for marine fuels set to take effect in 2020, speakers at the S&P Global Platts Bunker and Residual Fuel Conference said Wednesday.

Traffic of goods by sea up 430% in past 20 years - report. ANSAmed [Online]. 21 June 2017. Available from: http://www.goo.gl/rJdpmm The traffic of goods by sea in the Mediterranean has grown by 430% in the past 20 years, according to figures released in the 4th annual report "Italian Maritime Economy" by the Bank of Naples' Studies and Research for the Mezzogiorno (SRM) project.

Major carriers divided on push for ballast water postponement. By Tomas Kristiansen and Louise Vogdrup-Schmidt. ShippingWatch [Online]. 20 June 2017. Available from: http://shippingwatch.com/secure/carriers/article9665796.ece Calls from the International Chamber of Shipping to postpone the implementation date of the ballast water convention are met with both opposition and understanding when asking some of the world's top carriers.



Shipping's CO2 proposals slammed as merely 'decorative words'. By Sam Chambers. Splash 24/7 [Online]. 23 June 2017. Available from: http://splash247.com/shippings-co2-proposals-slammed-merely-decorative-words/ A host of NGOs have criticised Thursday's submission by four leading shipowning bodies on how the IMO should tackle CO2 emissions as not being ambitious enough.

MOL-MES Joint Development "Next-generation Vessel Monitoring and Support System". *Mitsui O.S.K. Lines Ltd.(MOL)* [Online]. 23 June 2017. Available from: http://www.mol.co.jp/en/pr/2017/17042.html MOL; President & CEO: Junichiro Ikeda, today announced an agreement with Mitsui Engineering & Shipbuilding Co., Ltd. (MES; President: Takao Tanaka; Headquarters: Chuo-ku, Tokyo) to jointly develop next-generation vessel monitoring and support systems for practical applications and commercialization.

New VPS Research Highlights Commercial Importance on Bunker Density Test Method Choice. Ship & Bunker [Online]. 23 June 2017. Available from: https://shipandbunker.com/news/world/790875-new-vps-research-highlights-commercial-importance-of-bunker-density-test-method-choice New research conducted by Veritas Petroleum Services (VPS) to evaluate bunker fuel density testing standards has shown strong support for recent changes included in the latest ISO 8217:2017 specification, as well as density test method ISO 12185.

Industry Insight: Understanding Density Measurement of Bunker Fuels. By Dr. Sunil Kumar, Veritas Petroleum Services. Ship & Bunker [Online]. 23 June 2017. Available from: https://shipandbunker.com/news/features/industry-insight/491773-industry-insight-understanding-density-measurement-of-bunker-fuels Density is one of the most important physical properties in the characterisation of bunker fuels.

Infographic: Problems with the Ocean Supply Chain. *Port Technology International* [Online]. 22 June 2017. Available from:

https://www.porttechnology.org/news/infographic_problems_with_the_ocean_supply_chain According to 200-plus industry executives from terminal operators, carriers, logistics providers, vessel owners, port authorities, shippers, consignees and other members of the global ocean supply chain, the push for industry improvements is likely come from a combination of forces.

South Africa rejects Japanese container line merger proposal. By Gavin van Marle. *The Loadstar* [Online]. 22 June 2017. Available from: https://theloadstar.co.uk/south-africa-rejects-japanese-container-line-merger-proposal/ The South African Competition Commission has rejected the merger of the container divisions of NYK, MOL and K Line to create Ocean Network Express.

Adm. Mark Buzby Nominated as Next Maritime Administrator. *Maritime Executive* [Online]. 22 June 2017. Available from: http://www.maritime-executive.com/article/adm-mark-buzby-nominated-as-next-maritime-administrator On Thursday, President Donald Trump nominated Rear Adm. Mark H. "Buz" Buzby to be the next head of the Department of Transportation's Maritime Administration (MARAD).

Ritz-Carlton dives into the cruise market with a 'yachting' concept. By Anne Kalosh. Seatrade Cruise News [Online]. 22 June 2017. Available from: http://www.seatrade-cruise.com/news/news-headlines/ritz-carlton-dives-into-the-cruise-market-with-a-yacht-concept.html The Ritz-Carlton Hotel Co. is getting into cruising with a 190-meter 'yacht' that will accommodate up to 298 passengers in 149 balcony suites.



Does One Belt, One Road make commercial sense? By Andre Wheeler. Splash 24/7 [Online]. 27 June 2017. Available from: http://splash247.com/one-belt-one-road-make-commercial-sense/ Following the recent summit held in Beijing in which the Belt Road Initiative (BRI) was the centrepiece, there has been much fanfare around the number of infrastructure MOUs being signed as well as speculation as to which countries / cities will benefit.

Maritime UK is today launching a new resource for careers in the maritime sector. Seafarers UK [Online]. 26 June 2017. Available from: http://www.goo.gl/dnzFB7 Launching during Seafarers Awareness Week, the new resource is targeted toward influencers of children and students as they consider their future career options.

Maritime UK Careers

Panama Canal Commemorates Landmark One-Year Anniversary of Expanded Canal. Panama Canal Authority [Online]. 26 June 2017. Available from: https://www.pancanal.com/eng/pr/press-releases/2017/06/26/pr628.html Today, the Panama Canal commemorated the one-year anniversary of the inauguration of its Expanded Canal, one of the most significant milestones in the history of the 102-year old waterway and a defining moment for the people of Panama and the global maritime industry.

A New Coat of Paint Is Rocking the Global Shipping Industry. By Abhishek Vishnoi and Kyunghee Park. *Bloomberg* [Online]. 26 June 2017. Available from: http://www.goo.gl/PUf18a A move by China to save the planet has delivered a price shock to the global shipping industry just as it was starting to emerge from its worst slump.

A Polar Code for autonomous ships? By Anastassios Adamopoulos. *Lloyd's List* [Online]. 26 June 2017. Available from: https://lloydslist.maritimeintelligence.informa.com/LL108843/A-Polar-Code-for-autonomous-ships A goal-based regulatory framework could pave the way for autonomous vessels, after international regulators took the first steps towards facilitating the development of the highly anticipated vessels of the future.

RESEARCH

State-of-the-art technologies, measures, and potential for reducing GHG emissions from shipping - A review. By E. A. Bouman, E. Lindstad et al. *Transportation Research Part D: Transport and Environment.* [Online]. (2017). Available from: http://www.sciencedirect.com/science/article/pii/S1361920916307015 CO2 emissions from maritime transport represent around 3% of total annual anthropogenic greenhouse gas (GHG) emissions.

Simulation of *Deepwater Horizon* oil plume reveals substrate specialization within a complex community of hydrocarbon degraders. By P. Hu, E. A. Dubinsky et al. *Proceedings of the National Academy of Sciences*. [Online]. (2017). Available from: http://www.pnas.org/content/early/2017/06/20/1703424114.abstract The *Deepwater Horizon* (DWH) accident released an estimated 4.1 million barrels of oil and 1010 mol of natural gas into the Gulf of Mexico, forming deep-sea plumes of dispersed oil droplets and dissolved gases that were largely degraded by bacteria.



The *Current Awareness Bulletin* (CAB) is published by the Maritime Knowledge Centre and is not an official IMO publication. Inclusion does not imply any endorsement by IMO.

Current and previous issues of CAB are archived at:

_Maritime Knowledge Centre

To subscribe or unsubscribe, send an email with your contact details to: <u>maritimeknowledgecentre@imo.org</u>

About the cover

The CAB Cover is a photograph of the international memorial to the world's seafarers, past, present and future which graces the entrance to IMO Headquarters in London. The memorial, a seven-metre high, ten-tonne bronze representation of the bow of a cargo ship with a lone seafarer on the deck, is the work of internationally renowned British sculptor Michael Sandle.