CONFEDERATION OF EUROPEAN SHIPMASTERS' ASSOCIATIONS

CESMA NEWS

MARCH 2021

IN THIS ISSUE:

CESMA LOGBOOK (2021 – 1)

We were represented at the following occasions:

5 JANUARY – NI WEBINAR MENTORING AT SEA

20 FEBRUARY – ON LINE CESMA BOARD MEETING25 FEBRUARY - NI WEBINAR FIT-FOR-PURPOSE TRAINING

11 MARCH - NI WEBINAR SHIP'S POWER LIMITATION

13 MARCH – LETTER TO EU COMMISSIONER FOR TRAINSPORT ABOUT PIRACY IN GULF OF GUINEA

28 MARCH – NI WEBINAR BALANCING VISUAL AND INSTRUMENTAL NAVIGATION

On the front page:

Containership Ever Given grounded at Suez Canal late March; Climate Change and Shipping; LPG carrier Levant stuck a Washington State wharf; Rotors folded down to permit docking and loading of the bulk carrier (Oldendorff)

2021 LIFE IN NEW REALITIES

2021 came with the new warnings about modified COVID 19 and possible new peaks of the pandemic. And so we have to learn to live with the new realities. In the last decades the maritime industry became more intensified and so the contracts of seamen shorten. Voyages of 6 and more months usual 20 years ago are rare now but the development of pandemic COVID 19 kept on board some seamen many more months than their contracts and was reason for a lot of mental and physical disturbances thus creating risk for the normal life on board ships and generating dangerous situations due to inadequate human reactions and human errors. Captains, of course, are more vulnerable to this as they have to cover the entire life on board and as usual is between the commercial pressure from the office and stressed seamen on board. From the other side the industry is developing very fast and mega containerships are getting bigger and bigger. In March the world faced the first accident from decades which closed Suez Canal for six days and created turmoil in world shipping with huge commercial losses for ship operators, trading and insurance companies. The investigation of that accident will find the causes for it but from ship captains point of view we see more and more commercial pressure to reduce expenses which leads to near misses and accidents. Transiting Suez Canal most probably will be more complicated in the future with new safety measures coming out of Ever Given grounding, more work and stress to ship captains

On the other side we continue meeting and communication on line as there are restrictions to travel and meet people. From CESMA Log Book You see that professional webinars and on line meetings are the only possible solutions. Even IMO events are organized on line as on 07th of April there will be IMO Award Ceremony for exceptional bravery at sea streamed on line through the following link: https://youtu.be/TWIG-5OrQQw.

The new realities require new skills for the mariners which should be trained either to existing seafarers or to next generation ones. There are a lot of conferences discussing future skills of mariners in connection with the change of technology, digitalization, cyber security and climate change, new world trade routes, sailing in Polar areas, etc. And once again we face the need of balanced approach to the new technology and use of traditional ways and principles of navigation. One cannot sail safe without using instruments but at the same time looking out the window and using personal skills, perception and human evaluation remains vital for successful carriage of goods at sea. Our mission is to cooperate together with politicians and other stakeholders in the

maritime industry and to meet challenges of the present building safe conditions for life on board for future generation seafarers.

Capt. Dimitar Dimitrov, PHD, AFNI,
CESMA Deputy President

MINUTES OF THE CESMA BOARD MEETING ON 20TH FEBRUARY 2021 MADE ON LINE VIA GOOGLE MEET

Those present:

Captain H. Ardillon	President (AFCAN, France)
Captain D. Dimitrov	Deputy President, BSMA, Bulgaria
Captain M. Badell Serra	Vice President, (ACCMM, Spain)
Captain L. Geenevasen	Administrator (NVKK, Netherlands)
Captain J. Karnincic	UKPTM, Croatia

The Board was welcomed on line by the President of CESMA, Captain Hubert Ardillon.

ITEM 1: Financial matters (subscriptions, final 2020, budget 2021)

The financial report for the year 2020 and proposed budget was sent to Board members in advance via e-mail. The President capt. Ardillon made short presentation and explanation on the items of the budget. He commented that we have savings due to reduced travelling of the Board and on line organization of AGA because of pandemic situation but he proposed to keep the budget as it was in 2020 considering possible improvement of the situation and return back to normal organization of board meetings, council meetings and AGA. For 2020 all the members paid their subscriptions except Italian Yacht Masters and already 10 members paid for 2021. Capt. Geenevasen said that financial situation in CESMA is normal and we are on safe position. Capt. Ardillon and capt. Geenevasen said that previous time Italian Yacht Masters paid for two years during the second year. Capt. Dimitrov proposed to keep the contacts with them. Capt. Ardillon stated that if they do not pay for the next year as per the statutes they would not have the right to vote and they could be excepted from the organization. The decision was postponed for the next council meeting depending upon development of the situation.

ITEM 2: Work in pandemic times – Board, Council, AGA

Capt. Dimitrov explained inclusion of that item in the agenda possible actions of the members of the board to be discussed to keep the organization alive in existing extraordinary situation. He proposed for the time being to keep the present way of meeting and communication via Google Meet as it is free of charge and enough to do what is necessary. The members of the Board agreed on that.

Subject the next AGA, which will be the 26th AGA, Capt. Karnincic explained the preliminary conversations with different stakeholders in Croatia for organization of next AGA in Rijeka. Possible dates are 16-17th September 2021. Faculty of Maritime Studies in the Maritime School in Rijeka, City of Rijeka, Primorska County in Rijeka already gave their agreement to be co-sponsors of AGA. Capt. Karnincic expects answer of the Ministry of Transport of Croatia. Same as it was scheduled last year, but unfortunately impossible to organise, capt. Ardillon, with agreement from capt. Karnincic, will send an invitation letter to EMSA. All Board members agreed on the dates subject to further confirmation during late April and after that final confirmation in June depending upon development of the pandemic situation and possibility to travel in Europe.

ITEM 3: Membership

In the extraordinary condition the membership remains the same. There are no new members. Capt. Dimitrov proposed the Board to re-establish attempts to attract new members after normalization of travel. Capt. Ardillon confirmed that it is better to meet people face to face and to discuss the matter.

ITEM 4: General Secretary(ies) duties

It was decided till the next elections the distribution of duties of the General Secretary to be the same between all Board members.

ITEM 5: Next AGA Rijeka organisation

See Item 2.

ITEM 6: Resolutions 2020

It was agreed the number of resolutions to be kept the same. There was proposal from capt. Dimitrov the wording of the preamble to be changed with general remarks on pandemic situation and new requirements to the seamen. In resolution 1 to be added that the same or similar way to be created and agreed between the countries for crew changes in the world, seamen have to have the right to be vaccinated before joining a ship, vaccines to be available for seamen and they to be included in the priority list, the owners to assist for that. CESMA to urge EU institutions for availability of PCR test possibility in the airports and in the ports, which have to be paid by the owners in order seamen to not be delayed in crew changes. Good example in that direction is crew hotels in Singapore where seamen are able to wait their ship (floating hotels). Ports have to make available for seamen possibility to be tested and allowed to go ashore. Capt. Ardillon reported that PSA (Port of Singapore Authorities) requires that seamen should be quarantined themselves, in their home, 14 days before to come in Singapore before to join a vessel. Pressure is put on owners as in case a seaman would be detected as positive to Covid upon arrival Singapore, the owners' fleet could be excluded from any relief allowed in Singapore.

ITEM 7: Contacts with EU Parliament, Commission, EMSA

Capt. Ardillon and capt. Dimitrov commented new paper to be submitted to EU institutions in support of the commented text in item 6 regarding crew changes. Capt. Badell agreed.

ITEM 8: Contacts with Maritime associations (EMPA, IFSMA, ETF)

All board members decided to work together with ECSA, EMPA and other professional organizations in promotion of seafarers as workers on the front line and less restrictions.

ITEM 9: Candidates for Board

Captain Ardillon confirmed his readiness after expiration of his turn as President to be candidate for Secretary General. Capt. Geenevasen informed the Board that in autumn 2021 he will hand over the position of Administrator in the Board to capt. Amerlaan who agreed in general. Capt. Ardillon proposed capt. Dimitrov to be proposed to the next Council Meeting for President of CESMA and CESMA members to be asked to propose candidates for Deputy President. Capt. Dimitrov confirmed that he is available for election as President. Capt. Geenvasen said for the time being CESMA is on safe side in connection with the bank as he and capt. Ardillon have access to the bank account. Capt. Dimitrov commented that if capt. Ardillon is elected as Secretary General there will be no need of arrangement of new access to the bank account and it will be made to the new administrator when capt. Geenevasen hands over his position to capt. Amerlaan.

ITEM 10: CESMA website and newsletter

The Board members agreed further work to be done in improvement of the web site. The newsletter will be made in the same way but the members have to send more information of the life in their organization. Capt. Dimitrov commented that the newsletter will be more valuable if there is more internal information and share of experience of member ship masters.

ITEM 11: Attendance Cork Wellbeing conference – 1st on-line (early 2021, waiting for exact date) – 2nd on site (Autumn 2021 – tbc)

The Board confirmed attendance if organized both in person and on line.

ITEM 12: Attendance EMD 2021 at Den Helder 20/21 May – possible on-line

The Board confirmed attendance if organized both in person and on line.

ITEM 13: Attendance AVCMM International Congress – 500 years Magellan – May 2022

The Board confirmed attendance if organized both in person and on line. Capt. Ardillon proposed to submit paper in connection with the legal status of the ship master during the Magelan

times and now.

ITEM 14: Attendance Transnav Conference Gdynia 16-18 June 2021

The Board confirmed attendance if organized both in person and on line. The attendance should be used to re-establish attempts to attract Polish Shipmasters Association to become member of CESMA.

ITEM 15: Any other matters

No any more open items

ITEM 16: Closure by the President

The President, Captain Hubert Ardillon , thanked the attendants of the Board meeting for their input and closes the meeting.

Captain H. Ardillon, President, Captain D. Dimitrov, Acting General Secretary, 20th February 2021

PROTECTION AGAINST PIRACY AND ARMED ROBERY IN THE CULF OF GUINEA – SHIPMASTER'S POSITION

The below quoted letter had been sent to EU commissioner of Transport, Ms Adina Valean on the proposal from our colleagues from NVKK.

LETTER ANSWER FROM EU COMMISIONER REGARDING CESMA LETTER ABOUT VACCINATION OF SEAFARERS

ADINA VĂLEAN
MEMBER OF THE EUROPEAN COMMISSION
TRANSPORT

STELLA KYRIAKIDES
MEMBER OF THE EUROPEAN COMMISSION
HEALTH AND FOOD SAFETY

Brussels, 26 March 2021

Dear Capt. Ardillon,

Thank you for your letter of 18 January 2021 on facilitating vaccination processes for seafarers. The Commission shares your concerns regarding the importance of including seafarers in vaccination schemes, as they ensure the global supply chain.

Seafarers are the workers transporting our food, medicines as well as energy products and ensuring the global supply chain. Transporting 75% of EU trade, shipping keeps us connected to the rest of the world and our economies afloat.

As essential workers, seafarers are listed as one of the categories that should be exempted from travel restrictions. This has been stressed in the Commission Communication of 8 April 2020, which underscores that Member States should allow seafarers to transit and travel.

The Commission Communication of 15 October 2020 on preparedness for COVID-19 vaccination strategies and vaccine deployment, also lists transportation workers as a priority group to be considered by Member States for vaccination against COVID-19. It is however important to note that, in line with Article 168 of the Treaty on the Functioning of the European Union, the responsibility for organising and delivering health services and medical care, including for vaccinations strategies and services, lies with EU Member States. Each EU Member State is therefore responsible for the deployment of the COVID-19 vaccines and for defining the priority groups that should be considered for vaccination first.

Ensuring the immunisation of seafarers holds additional challenges due to the global nature of the sector and working patterns. Seafarers who are EU residents will be covered by Member States' vaccination campaigns. Yet, it is unclear how and where inoculations will happen for seafarers from third countries. Some of the main labour-supplying States have not yet begun vaccinating or have ordered a limited number of doses, often of vaccines that have not (yet) been licensed in the EU. We are discussing these issues with Member States and industry representatives at working level as well as with the International Maritime Organisation.

Furthermore, vaccines not approved in the EU may be included in the list of WHO prequalified vaccines if they meet WHO standards of quality, safety and efficacy. They can then be considered acceptable, in principle, for procurement by UN agencies. However, the inclusion in the list does not imply any approval by WHO of the vaccines. The EU is currently discussing this with WHO and other actors such as the European Centre for Disease Prevention and Control (ECDC) and the European Medicines Agency (EMA) how to address the entry of people vaccinated with vaccines not licensed in the EU.

No region of the world is safe until we are all safe. Ensuring that no one is left behind is a key objective. In this context, the EU is co-leading the international collaborative effort needed to fight the pandemic. As part of this, the EU also supports countries in need covered by the COVAX-facility, including key labour-supplying countries.

It will take time before most seafarers travelling for crew relief are immunised. Until then, safe crew change practices and protocols, such as those contained in the Neptune Declaration of 23 January, supported by a broad coalition from the shipping industry and beyond, are essential for ensuring smooth maritime transport and facilitating safe seafarer mobility and crew changes.

We would like to assure you that we are fully committed to taking all steps to protect the health of our citizens.

Yours sincerely,

Adina Vălean

Stella Kyriakides

THE IMO 2021 CYBER GUIDELINES AND THE NEED TO SECURE SEAPORTS

By **CIMSEC** 01-10-2021 03:14:00, *[By Commander Michael C. Petta, USCG]*

The coming of a new year often holds promise for the future. With the coronavirus pandemic dominating center-stage last year, many have their eyes keenly focused on new beginnings with the start of 2021. For some in the maritime industry, especially owners and operators of commercial vessels involved in international trade, 2021 brings a new set of guidelines for protecting vessels—the International Maritime Organization's (IMO) guidelines on maritime cyber risk management.

These new guidelines, a milestone for maritime safety and security, are the product of collaboration and hard work among shipping industry leaders and IMO Member States. Some in the shipping industry consider this development to be game changing. Whether game changing or not, implementation of this new model is a vital step toward forging a uniform approach for combating cyber threats against vessels.

Notably, however, the 2021 guidelines leave an equally vital, and maybe just as vulnerable, part of the shipping industry—port facilities—without a similar set of principles. Now that the IMO's vessel guidelines are in the implementation phase, Member States and maritime industry leaders should again prioritize cybersecurity and collaborate at the IMO to develop uniform cybersecurity standards for port facilities.

The IMO and International Maritime Regulation

Before exploring the need for port facility cybersecurity standards, it may be useful to review the IMO's role in developing international regulations. In 1948, the Member States of the United Nations created the IMCO, which changed its name to IMO in 1982, to facilitate global cooperation with regulation and practices of shipping engaged in international trade. The IMO's goal is to ensure safe, secure, and sustainable shipping, facilitating trade and friendly relations among all states. Because shipping is historically and inherently an international endeavor, the IMO depends on and promotes cooperation among its 174 Member States to build uniform regulations that support this essential goal. The IMO construct has remained durable and inclusive since its inception.

Few maritime regulatory regimes exemplify the IMO's impactful work across the globe more than the International Convention for the Safety of Life at Sea (SOLAS). SOLAS is a treaty from the early 1900s drafted in response to, among other things, the infamous sinking of the RMS Titanic. After its initial adoption in 1914, SOLAS further evolved via multiple conventions over many years with the last convention adopted in 1974. Consequently, the treaty is commonly referred to as SOLAS 1974.

In general terms, SOLAS establishes minimum safety standards related to ship construction, equipment, and operation. Countries party to the treaty ensure vessels under their flags comply with SOLAS's terms by way of nationally administered certification programs. At the time of this writing, 166 countries, representing about 99 percent of the world's shipping tonnage, were contracting parties to SOLAS 1974.

Although the last SOLAS convention was adopted in 1974, the treaty has been amended various times since then via the IMO's "tacit acceptance" procedures. And like SOLAS itself, these amendments often followed tragedy, such as when the International Safety Management (ISM) Code was added as a chapter of SOLAS after a 1987 ferry accident in Belgium killed nearly 200 people. Because casualty investigators found the company's poor safety culture contributed to the accident, IMO Member States developed the ISM Code, a global safety management standard, to combat what one investigator called the "disease of sloppiness" on ships and ashore. Entering into force in 1998, the ISM Code has made "shipping safer and cleaner" for more than two decades.

The IMO's 2021 Cyber Guidelines

The ISM Code serves as the foundation upon which IMO Member States have built the 2021 guidelines for cyber risk management. The guidelines were consigned in 2017 via three key declarations. First, in Resolution MSC.429(98), Maritime Cyber Risk Management in Safety Management Systems, the IMO affirmed a view that the ISM Code already requires mitigation of cyber risks. Per this view, cyber risk management is already encompassed in the code's existing general requirement that companies establish safeguards against all risks to ships, personnel, and the environment.

Resolution MSC.429(98) also contains a second important declaration. In it, the IMO encouraged countries to "appropriately address" this preexisting requirement no later than January 1, 2021. Put in more practical terms, now that the anticipated deadline for IMO's cyber guidelines has arrived with the start of this new year, the IMO encourages Flag States not to issue compliance documents to vessels if cyber risks are not appropriately addressed in the respective safety management system.

The third important IMO declaration is in a July 2017 circular, in which the IMO announced that its Maritime Safety Committee (MSC) and its Facilitation Committee jointly approved specific cyber risk management guidelines. Member States developed these non-mandatory guidelines in partnership with shipping industry leaders to promote compliance with the aforementioned preexisting ISM Code requirement to mitigate cyber risks. In the July 2017 circular, the IMO recommends vessels and Flag States utilize the guidelines during compliance checks to assess whether cyber risks have been appropriately addressed.

As a risk management regime, the ISM Code is expected to adapt well to the management and mitigation of cyber risks. Government officials and maritime industry leaders, experienced from roughly 18 years of ISM Code practice, are expected to rise to the challenge of applying the code in the emerging cyber arena. Moreover, by identifying in the ISM Code a preexisting, albeit seemingly dormant, cyber requirement and then complementing that requirement with non-binding industry guidelines, Member States avoided the lengthy process of amending SOLAS 1974 and the ISM Code.

This is all to say, harnessing the ISM Code's risk management framework to mitigate cyber threats was an efficient approach. In 2021, Flag States will begin to utilize this approach and work toward global uniformity.

The Work that Remains to Secure Ports

SOLAS 1974 has been amended numerous times, often to implement subsidiary regulations such as the ISM Code. Another subsidiary regulation within SOLAS is the International Ship and Port Facility Security (ISPS) Code, the IMO's comprehensive mandatory security regime developed after a different tragedy—the 9/11 attacks. Interestingly, as the IMO's new model for addressing cyber threats was being considered, the MSC reported, via MSC 97/22, that some Member States felt ISPS might be more suitable for addressing cyber threats. Nonetheless, seemingly moved by the United States' 2017 assertion that the ISM Code's "application is sufficiently wide to include emerging risks associated with cyber-enabled systems," the IMO chose to harness the ISM Code, not ISPS, to promote global maritime cyber standardization.

While tapping into the ISM Code's wide framework was efficient, such resourcefulness also came with a major limitation. Unlike the ISPS Code that covers certain ships and the port facilities that serve them, the ISM Code, even with its broad risk management concepts, applies only to vessels. This limitation means owners and operators of port facilities around the world will not reap the protective benefits realized with 2021's implementation of IMO's new cyber guidelines.

Port facilities play a vital role in global trade and rely heavily on technology to operate. As the May 2020 incident at Iran's Shahid Rajaee port terminal demonstrates, a cyberattack at a port facility can be crippling. Since 2017, each of the four biggest maritime shipping companies in the

world have been the victim of a cyberattack, with a recent attack taking place only a few months ago in September 2020. Considering these events, one should have no doubt that port facilities across the globe are presently vulnerable to cyber threats and the potential that these vulnerabilities will be exploited is undeniably real.

With the reality of cyber threats in mind, Member States and maritime industry leaders should collaborate at IMO to develop uniform cybersecurity standards for port facilities, just as they did to protect vessels. Coincidentally, in 2016 the Islamic Republic of Iran offered this exact proposal to the MSC. In MSC 97/4, Iran stressed the critical need for cyber risk management guidelines specific to ports. This proposal, somewhat prophetically considering the 2020 events at the Port of Shahid Rajaee, underscored the serious consequences a cyberattack could have on a port and on critical infrastructure.

While the MSC did not act on Iran's proposal, in December 2016 the MSC expressly thanked Iran for its recommendation and "invited interested Member States to submit a proposal" for consideration at a future MSC session. No record has been found that any Member State has submitted such a proposal. Now is the time for Member States to accept the invitation.

Conclusion

The IMO's guidelines for managing cyber risks on vessels are a key development for the shipping industry. Flag States and shipping companies worldwide now have an industry-sponsored framework from which to recurringly assess cyber safeguards on ships. There is more work to be done, however, to appropriately protect the rest of the maritime transportation system. Like Flag States and their vessels, Port States and their ports require guidelines to ensure cyber risks are uniformly addressed at maritime facilities. With 2021 finally ushering in cyber standards for vessels, now is the time for Member States, in partnership with the maritime industry, to assemble at the IMO and develop similar standards to secure ports across the globe.

Commander Michael C. Petta, USCG, serves as Associate Director for Maritime Operations and professor of international law in the Stockton Center for International Law at the U.S. Naval War College. The views presented are those of the author and do not necessarily reflect the policy or position of the U.S. Coast Guard, the Department of Homeland Security, the U.S. Navy, the Naval War College, or the Department of Defense.

This article appears courtesy of CIMSEC.

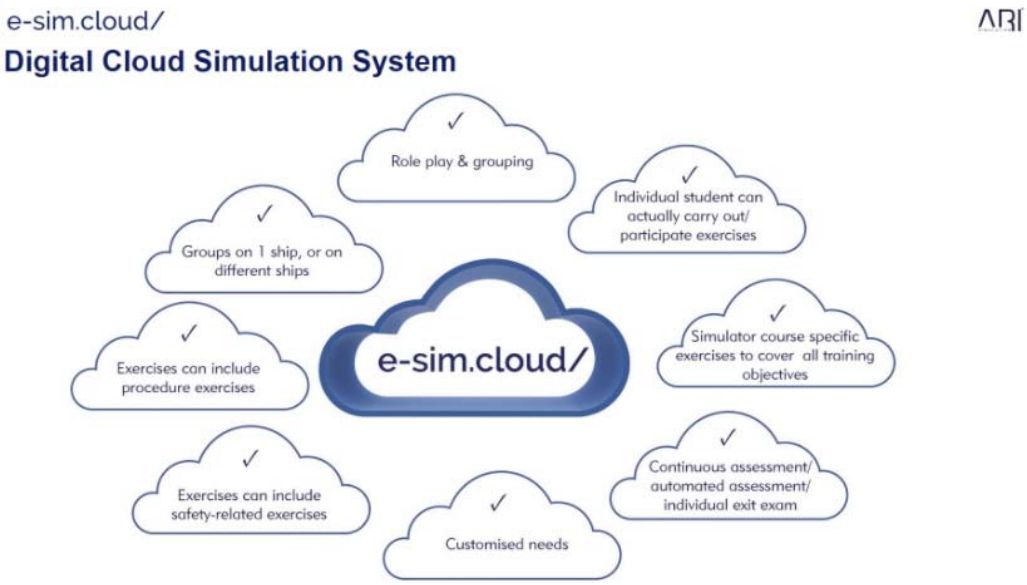
CLOUD TRAINING POSSIBILITIES DEMONSTRATED ON NI WEBINAR

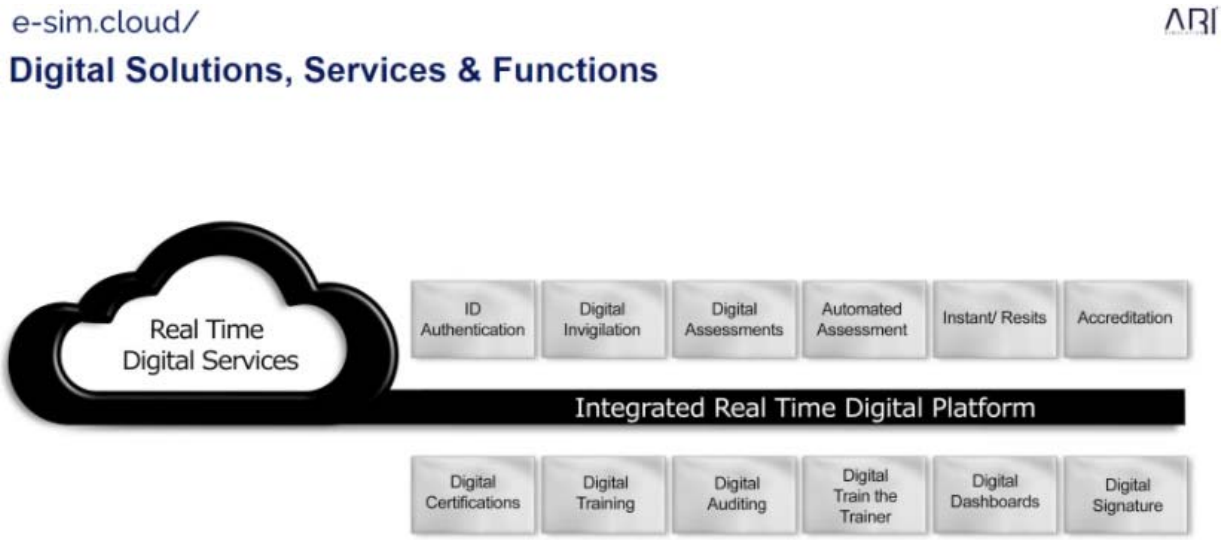
On December, 10th 2020 "Harnessing the power of cloud-based simulation technologies" webinar took place on line organized by Nautical Institute. The webinar was moderated by David Patraiko, NI Project Director with the main speaker Rakesh Bhatia with significant experience in product marketing of a range of marine & offshore simulation software products and advisor Captain Sartaj Gill from V.Group.

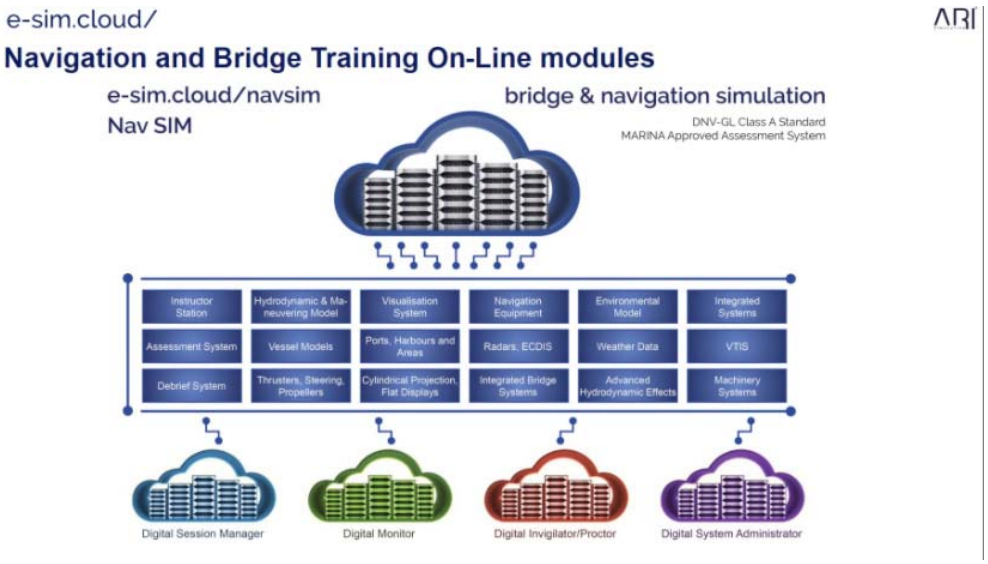
Rakesh Bhatia explained the possibilities of bringing digital assessment of competency direct to the desk of the company. Via cloud simulation training could be done with a number of persons either on board ships or ashore. For example bridge simulation exercises could be performed with different seamen from both shore and on board ships. Assessment could be done either automatically from the computer program or from the instructor as well as combined. The training needs administrator and instructor to manage the training/exercise and trainees. An example was demonstrated with simulated exercise where the shipmaster is on board one ship, watch keeping officer is on another ship, the helmsman is at home on vacation and look out is in the training centre. All this is possible and it could save a lot of time and resources. Some questions arose during the webinar when one participant asked that will happen if the watch keeping officer wants to call the Master on the bridge. Such situation could be simulated and of course real simulation in the training centre is more valuable but in the present situation cloud training is possible solution during travel restrictions and extraordinary situations as it is now.

Down below are some slides from the presentation explaining the philosophy and possibilities of cloud training.

Captain Dimitar Dimitrov, CESMA Deputy President





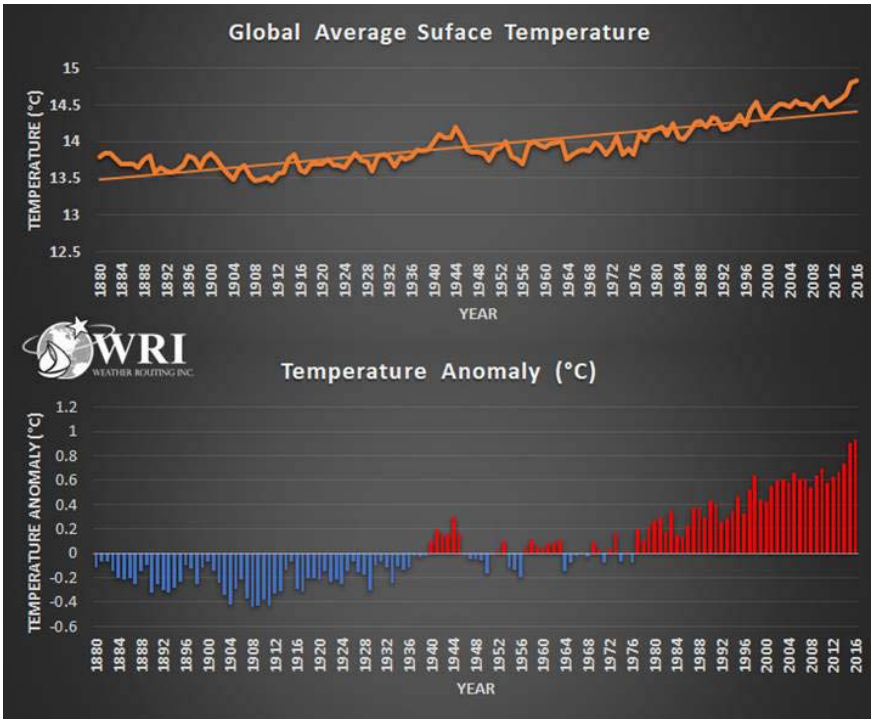


CLIMATE CHANGE AND SHIPPING

Satellite Image showing a winter-time bomb cyclone off the U.S. East Coast, January 4, 2017 (courtesy CIRA, NOAA/NESDIS RAMMB)

By **Keith Wagner** 03-15-2021 11:20:00

While frequent debates occur over the causes of climate change, the reality of a changing climate over the past 50-70 years cannot be disputed. Across the globe, data shows increasing average temperatures. Average global surface temperature has increased 1.14 degrees Celsius since the late 19th century, with increased frequency of extreme temperatures.

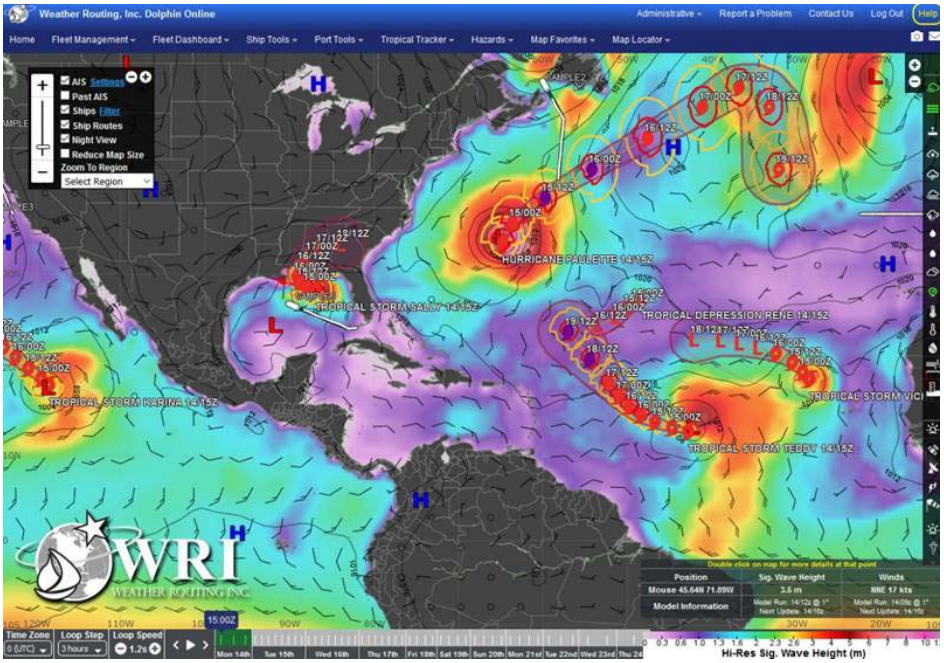


Global average temperature and temperature anomalies (degrees C) from 1980-2016 (data courtesy NOAA/NCDC and NASA/JPL-Caltech)

From a meteorological and oceanographic perspective, there have been other "signs" of changing weather patterns and warming oceans:

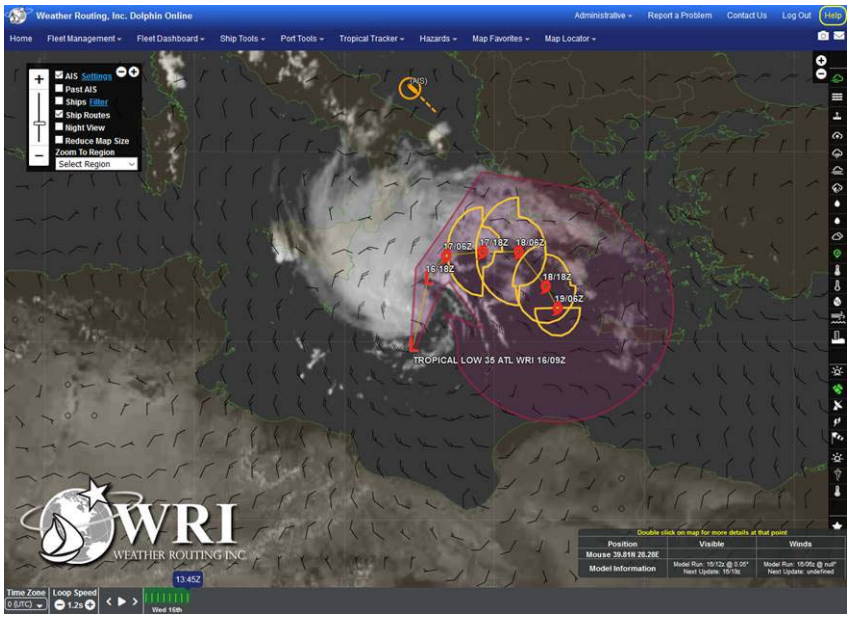
1) Increasing frequency of "bomb cyclones" across many parts of the world, including off the U.S. East Coast *(image at top)* and across the Aleutians and Gulf of Alaska. A recent storm off the Aleutians in late December set a record low pressure for this region, with a minimum pressure equivalent to a Category 4 Hurricane.

2) Record-breaking Atlantic Hurricane season in 2020, with 30 named systems setting a new seasonal record, and with multiple hurricanes impacting the U.S. Gulf Coast. Ocean Heat Content continues to rise comparing overall average from the past 50 years.



Six active tropical systems at one time across the Atlantic/East Pacific basins on September 14th, 2020

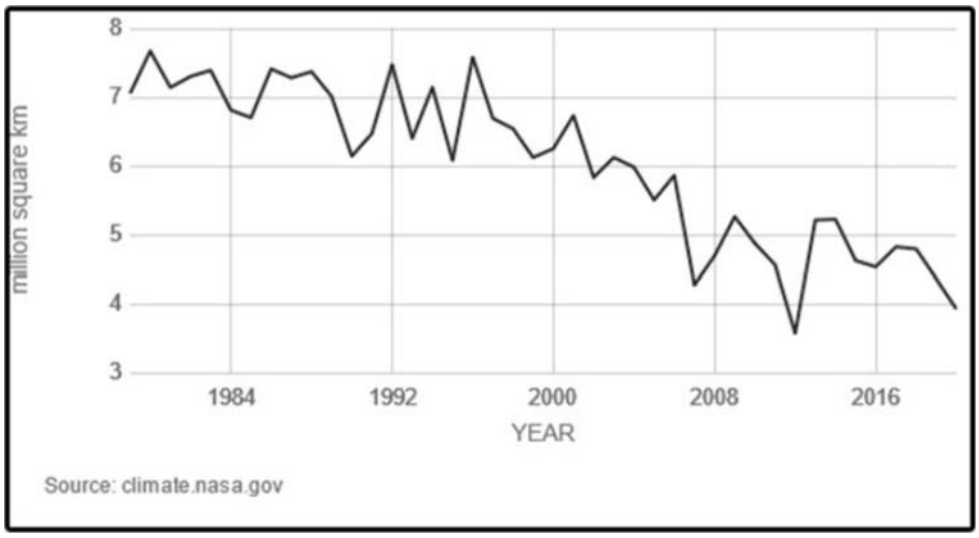
3) A Mediterranean "tropical cyclone" impacted the Ionian Sea and Greece in September 2020, reaching minimal hurricane strength and causing widespread damage.



"Medicane" in the Ionian Sea on September 16th, 2020 (satellite courtesy EUMETSAT)

4) Sea levels are rising across the globe due to melting of glaciers and ice sheets. Global sea level has risen about 20 cm (8 inches) in the last century. The rate of increase has "doubled" in the last two decades.

5) Sea ice is decreasing in most parts of world in view of warming global temperatures. Greenland and Antarctica ice sheets have decreased in mass consistently since 1993.



Global sea ice coverage (million square km) from 1980-2020 (courtesy NASA)

6) Warming oceans are impacting marine wildlife including coral reefs. Ocean acidification (acidity in the surface ocean waters) continues to increase with harmful effects to the marine wildlife.

Impact on shipping

While the above issues are certainly of interest (and concern) for most people, they have a particular impact on the shipping industry.

Stronger and more frequent storms (both tropical and winter-time) are resulting in significant impacts to typical maritime trade routes. Vessels are often required to adjust planned routes to minimize or avoid heavy weather impacts, potentially resulting in delays and additional bunker consumption. Vessels which are not using a weather routing company may experience significant delays, or in worst-case scenarios, loss of cargo or damage to the vessel. Added delays or potential for "damage" equals added cost to the maritime sector.

Ports are also impacted by the increasing frequency of storms, with potential for damage to infrastructure in the strongest storms. At a minimum, these systems will more frequently disrupt loading/discharging operations, resulting in delays for owners, charterers, and customers. In the longer-term, ports will also be impacted by rising sea levels that may eventually require significant infrastructure changes at these ports, with potentially devastating effects for the coastal communities.

More frequent "flood" tides will have a significant impact to loading/discharging cargo due to flooding and higher tide levels. In some cases, port Infrastructure will need to be modified for higher water levels.

On the other hand, decreasing sea ice is opening up opportunities for trade routes in certain regions and at certain times of year that were impossible a few decades ago. The "Northern Sea Route" is becoming a more frequent possibility, significantly shortening the time and bunkers required to transit from the Canadian Maritimes and/or northern Europe to the Far East. In January, two icebreaking LNG carriers met in the East Siberian Sea without the assistance of an icebreaking escort!

As weather patterns change, temperatures rise, and ice melts, this also will have an impact on

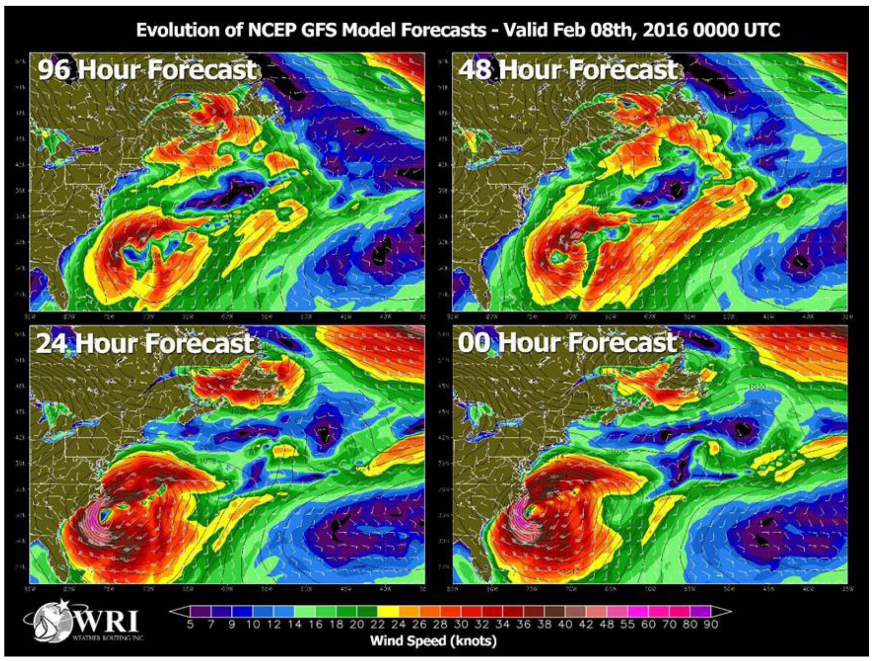
ocean currents. Most surface ocean currents are driven by the local winds. With stronger and more frequent storms, this will result in stronger but potentially more variable surface ocean currents. Other deep-water currents are driven by density differences. As more ice melts, more fresh water is deposited into the ocean, resulting in density changes that will impact the global current patterns. These ocean current changes can in turn lead to further changes in weather patterns.

While not usually a foremost thought for mariners, climate-driven changes to marine life may eventually impact routing options, as some areas may be "off limits" as local authorities attempt to maintain a fragile ecosystem.

Meteorological guidance

Another aspect to consider is the reliability of computer programs to accurately predict conditions during these changing times. The various models and programs were developed based on climatological "normals". Most onboard vessel routing programs only use one computer weather model, and it is known that each model has "biases" in certain parts of the world.

As weather patterns change significantly, it is expected that these biases in models will become more pronounced, and it is still unknown how well they will accurately handle rapidly changing conditions. An experienced meteorologist will become even more necessary to interpret the various models, and to provide real-time insights that models cannot provide.



Evolution of GFS computer model prediction of a bomb cyclone off the North Carolina Coast on four consecutive days, showing a weak system well offshore four days out, but a strong storm near the coast 1-2 days out.

With the expectation of increasing meteorological and oceanographic phenomena impacting the shipping industry, it is more important than ever to have a weather routing company with experienced marine meteorologists monitoring your fleet. Weather Routing Inc. (WRI) has been assisting our clients for 60 years to achieve safe and cost-effective transits. Our optimum routing services ensure that your vessels are on the safest and most efficient transit possible, while port forecasts keep you advised of upcoming conditions at any port location around the world.

Daily tropical summaries are provided to keep you informed of any tropical activity that may impact your operations. Finally, our Dolphin Website and Dolphin OnBoard system allow you to view the latest weather information and forecasts for your transits.

Our team will be here to guide you through the changing waters ahead! We encourage you to contact us at wri@wriwx.com or visit wriwx.com to learn about how we can assist your operations.

FROM THE EDITOR

1. Administering the COVID-19 Vaccine in the Maritime Industry

U.S. DOD file image, By Alison Bailey 01-11-2021 04:01:00

As two historic vaccines undergo distribution to slow the spread of COVID-19, the maritime industry must confront the unique operational obstacles we face in administering them. Our sector is a vital pillar of the global economy. Our mariners are essential to supply chains in critical products like food and energy. Good work is already being done to ensure our workforce is included in Phase 1B and 1C. As we advocate for appropriate classification in the tiered phases of distribution, we must also carefully consider the logistical details involved with handling and administering these storage-sensitive vaccines.

Pfizer and Moderna are the pharmaceutical companies manufacturing the two COVID-19 vaccines available as of early 2021. Both immunizations require two doses of the vaccine. The second dose of Pfizer's medicine should be administered 21 days after the first dose. The second dose of Moderna's should be administered 28 days after the first dose. We are learning more about the flexibility and timing of the second dose.

"This is a significant operational challenge," explains Dr. Ann Jarris, CEO of Discovery Health MD, a medical risk management firm based in Seattle. "You have to schedule people carefully, they have to show up for their appointments, it has to be done on that day, and you have a very narrow window during which you can have the vaccine ready to be given. There is no room for slop."

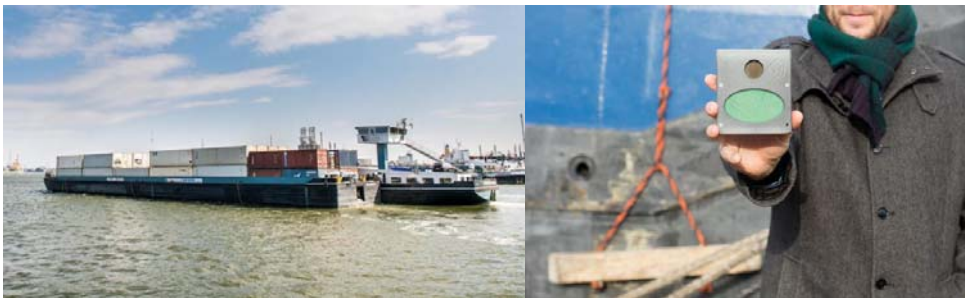
If you are administering the first shot, you must be prepared to commit to giving the second shot. This may necessitate either pulling your vessel into port just weeks after your last departure. Storing or administering the vaccine on board is not currently recommended due to the possibility of temperature excursions, the need to protect vaccines from vibration and the limitations of treating significant reactions at sea. Developing an understanding with your local port medical providers on vaccine administration will be critical. States are recommending the first and second dose be given at the same location, but that may not be logistically possible.

Dr. Jarris emphasizes that both vaccines appear to be very safe. Common reactions include soreness or rash at the injection site, fatigue, fever and muscle aches. These may start immediately after the vaccine or become apparent a few days later. Allergic reactions have been reported and appear to be caused by other ingredients found in the vaccines, potentially polyethylene glycol. That being said, individuals with a history of allergic reactions should be observed for 30 minutes after the shot. Individuals without such a history should be observed for 15 minutes. The CDC has released an app called "V-safe" for people to report reactions after vaccination.

Two more pharmaceutical companies, Johnson & Johnson and AstraZeneca, are in the process of developing other COVID-19 immunizations but they aren't expected to be widely available until later in 2021. These may come in single-dose formulations. Some maritime outfits may choose to wait for that option, but some may need the security and peace of mind that come with a fully immunized workforce as soon as possible. If this is the case, start considering the logistics of your crew's immunization schedule and work with your local medical providers to coordinate vaccine availability and appointments.

Discovery Health MD is a medical risk management firm that specializes in consulting for the maritime industry. They are registered providers of both COVID-19 vaccines and have been working to immunize Phase 1A recipients. If your operation includes Phase 1A workers and you are interested in utilizing Discovery Health MD's services to coordinate vaccination administration in the Seattle area, write to info@discoveryhealthmd.com to start the conversation.

2. Autonomous Shipping Research Using 3D Sonar at Port of Antwerp



3D sonar technology was tested in Antwerp for autonomous navigation on inland shipping - photo courtesy Port of Antwerp

By **The Maritime Executive** 01-08-2021 03:12:35

The Port of Antwerp is working with UAntwerp on research into autonomous shipping, but unlike other projects, their focus is on the critical but less high-profile segment of inland shipping. Inspired by the way bats see the world, the project is using 3D sonar sensors to develop automated navigation technology. Like the mammals, they are using a form of echolocation technology where they emit sound waves, and when those waves hit objects they produce echoes that the mammals use to avoid obstacles.

For the project with the Port of Antwerp, the researchers developed a 3D sonar sensor with 32 sophisticated waterproof microphones. This technology was successfully tested on the Tuimelaar, one of the Port of Antwerp's test vessels in the last weeks of 2020 demonstrating the potential to overcome critical hurdles to achieving autonomous navigation.

"In order to achieve fully autonomous navigation, constant monitoring of the ship's surroundings is absolutely crucial," explains Prof. Jan Steckel who working at CoSys-Lab, a research group in UAntwerp's Faculty of Applied Engineering, develops advanced sensor systems that can withstand harsh conditions. "Cameras can be used, of course, but when visibility is poor – due to dust, water sprays, mud, smoke, or fog – they don't work properly."

Sonar sensors, however, remain fully functional under such circumstances. They can provide a reliable picture of the ship's surroundings at a low cost. The information is transmitted in real-time, to prevent delays that could cause the ship to crash.

In 2021, the team will embark on a follow-up project to the recent test. As part of the Smart Docking Innovation Challenge, the Port of Antwerp has approved 3D Sonar and Lidar for Vessel Monitoring project also to be led by Prof. Jan Steckel.

3. An Early Look at ASKO's Autonomous Freight Ferries

File image courtesy Kongsberg / Massterly, By **The Maritime Executive** 01-18-2021 09:33:00

Norwegian grocery distributor ASKO is investing in one of the most remarkable vessel projects of the decade. With help from the Kongsberg / Wilhelmsen joint venture Massterly, ASKO is ordering two fully autonomous, electrically powered freight ferries for a route across the Oslofjord. By creating a new private ferry service, ASKO will save the fuel, pollution and man-hours needed to drive freight trailers on a circuitous route between two of its facilities. In addition, the groundbreaking investment will demonstrate the integration of multiple automated systems in one unified platform, taking trailers from one staging area to another with minimal human input. The ASKO vessels will operate between Horten and Moss, a distance of about five nm with a transit time of approximately one hour. There is significant commercial traffic to and

from Oslo, Drammen and other ports, and lots of leisure boats, especially in summertime. The ASKO schedules will be coordinated with the VTS operation in Horten. At each end, the facilities supporting autonomous operation will include automatic mooring systems, automatic loading ramps and automatic electrical charging systems. Additionally, facilities for autonomous trailer movements will be installed.

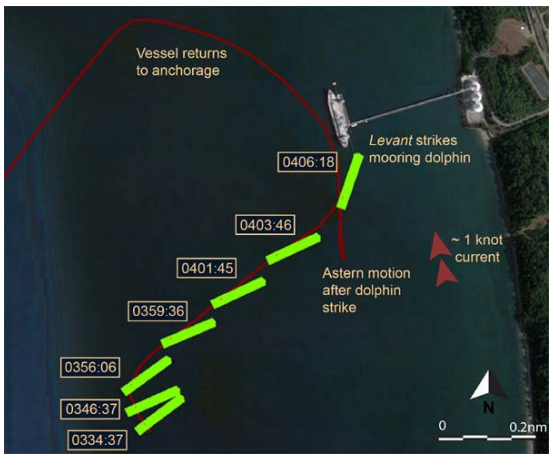
4. NTSB: Complacency and Poor Bridge Management Led to LPG Hitting Wharf

By **The Maritime Executive** 02-05-2021 05:55:53 View of the Washington State terminal with a similar vessel to illustrate the accident (Petrogas photo supplied by NTSB)

The National Transportation Safety Board of USA is citing the importance of proper planning even when a vessel is only doing a short movement and when the belief is that it is a simple situation. In its report into a 2019 accident during which an LPG carrier stuck a Washington State wharf, the NTSB cites poor bridge resource management by the pilot, captain, and bridge team, along with complacency that resulted in more than $8 million in damage to the wharf and ship.

"While a shift to and from a wharf may be shorter than a longer distance passage, there should be no difference to the overall planning of the approach speed and angle to the wharf," the NTSB writes in its analysis. While only a few hours had transpired between the two shifts of the tanker and it involved the same pilot and tugboats, the NTSB concluded there was a sense of complacency that led up to an ineffective exchange of information between the pilot and bridge team not taking into consideration variables such as wind, current, and tidal conditions that might have changed.

The incident under investigation happened on December 15, 2019, when the 741.5-foot partially loaded liquefied gas carrier *Levant*, owned by Avance Gas LTD and operated by Exmar Ship Management NV, struck the Petrogas Ferndale Wharf in Puget Sound. While there were no injuries or pollution, the allision resulted in penetration and flooding of a forward ballast tank on the vessel and destroyed the wharf's south mooring dolphin and the catwalk connecting it to the wharf.



NTSB diagram of the movement of the Levant approaching the terminal

The *Levant* had been at the terminal loading when according to the NTSB the captain became concerned that due to the outbound tide that the vessel was becoming too close to the bottom and wanted to move to a deeper anchorage approximately 0.7 miles from the terminal. Under Washington regulations, a pilot and tugboats were required for the short move, which was completed on December 14. Approximately seven hours later the vessel was being shifted back

to the terminal to resume loading with the same pilot who had remained aboard and the same tugboats.

Returning to the bridge, the pilot quickly briefed the captain about the angle of approach to the wharf and speed taking into account what he believed to be the current tidal conditions. The master determined the exchange of information to be "adequate for the short shift back to the wharf," and the NTSB believes the other bridge crew was not included in the briefing.

The NTSB determined that the *Levant* approached the wharf at too steep of an angle and an excessive speed for the proximity to the wharf. The pilot was not using any distance-measuring functions of the radar or the ECDIS during the move. The vessel's speed increased to about 4.5 knots before the pilot ordered the rudder hard to port, but the NTSB says this order came too late, less than three minutes before the contact.

The other crew members not having been briefed were not prepared to challenge the pilot the NTSB says and they also report "a non-pertinent conversation took place," that likely distracted both the pilot and master just before the order to turn was issued. Terminal employees on the wharf confirmed that the vessel seemed to be coming in too fast and they were forced to run to shore before the walkway collapsed during the allision.

The NTSB concludes the vigilance of a pilot and bridge team should be increased, not decreased, with a ship's proximity to dangers and obstructions. Regardless of the distance or duration of a transit, the bridge resource management fundamentals of planning, communication, use of all available resources and information, monitoring, and management of distractions are essential to operations with a pilot on board.

The Marine Accident Brief is available online.

5. Tanker Captain and Third Mate Charged with Manslaughter for Collision

The tanker Vulcanello (file image courtesy Fiver / CC BY SA 4.0)

By **The Maritime Executive** 02-11-2021 09:28:00

The captain and third mate of the product tanker *Vulcanello* have been arrested in connection with the sinking of the fishing boat *Nuova Iside* on May 12, 2020, which resulted in the deaths of three fishermen.

The two officers have been charged with causing a shipwreck and manslaughter, and they are under arrest pending trial. The *Vulcanello's* owner has been placed under house arrest, and he has been charged with fraud and aiding and abetting, according to Italian media.

On the night of the casualty, the *Nuova Iside* was operating off the northwestern coast of Sicily, and she sent a mayday message which was received by the Palermo port authorities. A search was launched and two bodies were recovered. The remains of the final missing crewmember were found on the coast of Calabria one month later.

After an investigation into the circumstances of the sinking, the Italian Coast Guard decided to seize the VDR of the *Vulcanello*. A search of the shipowner's offices allegedly uncovered evidence that the *Vulcanello's* hull had been repainted after the vessel collided with the fishing boat.

The victims have been identified as Vito Lo Ianoco, the skipper of the *Nuova Iside*; his cousin Giuseppe; and his father Matteo. Since the casualty, their family has pressed for answers about the cause of the sinking, and has refused to accept that it was simply an accident caused by foul weather conditions.

„In our hearts we felt that something strange and terrible had happened that night. Our relatives were expert seamen and would never put themselves in danger. What happened in these

hours gives us confirmation of what we already knew," said Rosalba Cracchiolo, mother of Vito Lo Iacono and wife of Matteo Lo Iacono, in a statement to Italian media. „We appreciate the work done by the Palermo prosecutor to bring out the truth."

6. Wakashio Captain Confirms He Navigated Close to Shore to Pick Up Cell Signal, But Blames Chief Officer for Grounding, gCaptain

The captain of the ill-fated bulk carrier M/V Wakashio told a Mauritius court that he navigated the ship closer to land to allow his crew members to pick up cell phone service so they could connect with loved ones back home, but said ultimately it was his Chief Officer who ran the ship aground back in July.

Captain Sunil Kumar Nandeshwar appeared for the third and final time before the Court of Investigation set up to investigate the accident, where the 59-year-old Indian national again testified that he decided to maneuver the ship close to land to pick up cell phone signal as a gesture to the ship's crew, who were working beyond the initial scope of their employment agreements. However, according to the captain, fault lies with the first officer.

Captain Nandeshwar said that if Chief Officer Subodha Janendra Tilakaratna had followed his instructions, the ship would not have grounded at all because, in the captain's view, the vessel's course was altered, bringing it within 1.5 nautical miles of the coast of Mauritius.

He said he did not intervene that night because the Chief Officer was an experienced sailor. He also pointed out that although the Chief Officer had consumed alcohol, he was not under influence on the night of the accident. The consumption of alcohol, he explained, is allowed on board under certain conditions.

The Wakashio was unladen when it ran onto a reef off Mauritius' Pointe-d'Esny on July 25, 2020, while en route from China to Tubarão in southern Brazil. The vessel initially appeared stable, but after spending weeks on the reef, it eventually broke up, resulting in the release of some 1,000 tonnes of heavy fuel oil which seeped into Mauritius' lagoons and created an environmental disaster.

In his testimony, Captain Nandeshwar pointed out that he had modified the course of the ore carrier to avoid a tropical depression and to pass as close as possible to Mauritius by heading for an artificial point on the French island of La Reunion. In doing so, crew members would be able to pick up cell signal to contact loved ones back home. The Captain noted that the crew was initially due for crew change on 19 January 2020, but due to COVID-19 restrictions, their crew change had been cancelled.

Speaking about his career, Captain Nandeshwar said he was promoted to captain at the age of 30, well ahead of many of his peers, and he stressed that he had commanded some 20 to 25 ships, mostly tankers, before taking the helm of ore carriers. He claimed he has never had any accidents, and also confided that his wife is a private doctor and that he has two children.

7. MOL Safety Plan Addresses Complacency and Overconfidence on Wakashio

Wakashio broke apart after ground causing an environmental disaster in Mauritius - image courtesy of Mobilisation Nationale Wakashio

By **The Maritime Executive** 12-18-2020 04:41:50

Nearly five months after the grounding of the bulk carrier *Wakashio* off the island of Mauritius, Mitsui O.S.K. Lines (MOL) which had chartered the vessel, announced its action plan designed

to enhance its safety processes and culture aboard its ship and ones it charters. While saying the investigation is still ongoing, the company confirmed what many people believed were the causes of the accident and subsequent oil spill and environmental disaster in developing its plan.

Saying it was based on information the shipowner, Nagashiki Shipping Co., had obtained from the crew, MOL identified issues it termed as complacency and overconfidence leading to not preparing an appropriate passage plan, not using the correct navigational map, and neglecting visual and radar watchkeeping.

Two days before the grounding, MOL reported that the *Wakashio* changed her passage plan that would have had her 22 nautical miles from the island to a new plan to be with five nautical miles of Mauritius. On the day of the grounding, the plan was again altered to sail two nautical miles offshore to enter an area within the communication range of mobile phones.

The crew did not own the correct navigation chart for the planned approach to Mauritius and instead used a nautical chart without a sufficient scale to confirm the accurate distance from the coast and water depth. In addition, a crewmember neglected appropriate watchkeeping, visually and by radar, MOL says, even though the ship was trying to sail two nautical miles off the coast.

The statement cites only these issues resulting in the ship running aground in shallow water less than a mile off the coast of Mauritius. Statements from Panama as the flag state and reports in the media also suggested that there was a crew birthday party underway at the time of the grounding and that officers might not have been present on the bridge or distracted before the grounding.

MOL, however, cites overconfidence that stems from complacency, saying that the *Wakashio* had on several prior occasions approached other coasts before the grounding. “In MOL‘s view, such behavior on a large vessel reflects a lack of safety awareness,” the statement says. “Another reason behind the cause is that the crewmembers lacked awareness of the guidelines on performing navigation in a safe manner and their efforts to conform were insufficient,” the statement continues.

Based on what it believes were the probable causes of the grounding, MOL says it will invest the equivalent of approximately $4.8 million on education programs, steps to ensure better compliance by its crews and on charter vessels, and upgrades to the ships’ systems. That is in addition to the nearly $10 million in aid MOL pledged to Mauritius and the company’s donations of personnel, time, and services to support the recovery effort on the island.

One of the areas that came in for criticism aboard the *Wakashio* and many other ships, especially during the pandemic is the lack of onboard communication systems to permit the crew to remain in contact during the prolonged periods at sea. MOL committed to upgrading and installing high-speed and large-capacity communication systems on MOL vessels and requesting that shipowners do the same on any vessels it charters.

The other critical change is a plan to introduce a service plan for MOL vessels, which allows browsing of worldwide electronic charts at all scales, without requiring the purchase of the chart. Shipowners of chartered vessels will also be requested to implement this plan.

The educational programs will address the lack of safety awareness with steps including a safety campaign, meetings with crew, and education on the operation of electronic nautical charts. They will also conduct a safety awareness survey and take further steps based on the findings.

On shore, they committed to enhanced involvement with shipowners as well as enhanced support for the ships and inspections. They will re-develop the watchkeeping operational manual to reinforce the 24-hour monitoring system, including a new grounding risk monitoring system. Shore staff will also check personal histories when changing senior officers and hold briefings with senior officers.

Trials are also underway on some MOL vessels using monitoring cameras on the bridge as an increased deterrent and to ensure implementation and adherence to the safety protocols. MOL says it will examine the installation of cameras on all its vessels, after verifying the effectiveness of the trials.

They concluded by saying, “every MOL Group member must take to heart the message that safe operation is the major premise for corporate activities and work to prevent the reoccurrence of this incident.”

8. Captain and Officers of MSC Opera to be Jailed Over 2019 Accident

By **The Maritime Executive** 02-09-2021 07:17:54

The criminal case stemming from a 2019 accident in which the cruise ship *MSC Opera* hit a river cruise ship and the dock while arriving in Venice has been concluded with an agreement that will see jail time for the captain and crew blamed for the accident. The allision had made worldwide headlines with video of the accident airing on worldwide news reports and contributing to the arguments that large cruise ships should be banned from Venice.

The accident happened on June 2, 2019, as the *MSC Opera* was approaching the cruise terminal after having made its scenic sail into the port past the famed St. Mark’s Square and sights of Venice. With the cruise ship’s decks packed with passengers, eye-witnesses reported that the cruise ship failed to slow as it near its dock and even appeared to possibly speed up as it hit Uniworld’s river cruise ship the *River Countess*, and then the seawall. Passengers aboard the *River Countess* were sent running and several minor injuries were reported among the passengers. The river cruise ship sustained substantial damage.

Experts testifying in the case cited several mistakes by the ship‘s crew that led to the accident. MSC Cruises had sought to blame the ship‘s builder, Chantiers de l‘Atlantique, citing what it claimed were inherent design flaws in the cruise ship. The 59,000 gross ton *MSC Opera* was built by the French shipyard and entered service in 2004.

Among the issues cited by the experts was the failure by the chief engineer and chief electrician to address a warning signal of a possible failure on the main electrical switchboard for the cruise ship that related to the power supply to the engine and steering controls on the bridge. The experts said that the warning had first gone off while the vessel was still in the lagoon. When they failed to address it, the bridge controls went on to emergency backups for their power supply. MSC said the alarm failed to show up on the monitoring system blaming it on a design flaw in the surveillance system.

The experts also reported that the cruise ship was traveling above the designated speeds during portions of its transit in the canal as it proceeded toward the dock. Two tugs were assisting the ship as it neared the dock nearly an hour after the system failure. The emergency power system, which was designed to last for a maximum of 30 minutes, failed as the ship neared the dock, leaving the bridge incapable of maneuvering and regulating the ship’s speed.

The two tugboats reportedly did everything they could to slow the cruise ship and steer it to prevent a more serious impact. The captains of the tug were both exonerated from blame for the accident.

According to Italian media reports, Captain Carmine Siviero of the *MSC Opera* will serve five months in prison while the chief engineer and the chief electrician will each spend two months in prison. Two other crew members will spend 10 days behind bars while other crew members who also cited in the case, including the officer on watch, the co-navigator, and the security officer, were exonerated.

Insurance claims pending from the accident are also in the process of being settled. Uniworld, owners of the *River Countess*, has filed a nearly $14 million claim for the damages its vessel

suffered as well as the lost revenues while the river cruise ship was out of service for repairs.

Critics of the large cruise ships have long contended that they are causing damage to the historic city and that they should be barred from sailing along the canal and docking in Venice. They cited the 2019 accident as another example in their argument to ban cruise ships from the city.

9. Cyprus Proposed Program to Prioritize COVID Inoculations for Seafarers

(CDC photo), By **The Maritime Executive** 02-10-2021 06:39:47

While there have been repeated calls to add seafarers to the priority list of those individuals eligible for COVID-19 vaccines, a series of logistical challenges present hurdles to implementing a vaccination program for crews aboard their ships. A structure and protocol are required to implement the inoculations of seafarers.

Cyprus‘ Shipping Deputy Ministry Vassilios Demetriades has stepped forward proposing a global approach to delivering COVID-19 vaccinations to seafarers as part of an effort to help alleviate the global crew change crisis. Cyprus believes it has developed the foundation of a workable solution to inoculations.

“Despite the international and EU efforts to date, crew changes are still very difficult, or not even possible in many countries. A global seafarer vaccination program would greatly assist the enhancement of crew changes. While we recognize that this is a complex issue in terms of both procedures and logistics, we believe that by working together a practical, feasible solution can be found,” said Demetriades.

Among the challenges they are seeking to address for the logistics of a vaccination program for seafarers, are the issues of the country of origin or residence of the seafarers, transport, and customs restrictions. They also recognize that there are issues of availability of the approved or authorized vaccines, as well as the challenge of how to administer the two-stage vaccination process currently required by the first vaccines to win international authorizations. Further, there are the questions of the subsequent time required for a seafarer to be considered as inoculated.

In letters to the EU Transport and Health Commissioners and IMO Secretary-General, Demetriades proposed what Cyprus believes could be an effective protocol to expedite the inoculation of seafarers. The process focuses on separating seafarers into two groups based on the duration of the sea voyage.

Seafarers that work on short sea routes would remain under national jurisdiction as their work keeps them closer to home. Cyprus suggests for these seafarers it would be easier to achieve regional cooperation.

For deep-sea shipping, Cyprus believes that vessels operating on long-distance intercontinental routes should be designated as an isolated COVID-19 zone; a bubble much as the industry has been operating since the start of the pandemic. The focus would be on seafarers who work long-distance, international routes who are ashore on leave. It would require a coordinated global approach to ensure adequate numbers of approved or authorized vaccines, acceptable to all governments, are available to seafarers for inoculation in their country of residence before they travel to join their respective ships. Under this structure, crewmembers aboard the ships would wait until they returned home and then be placed into the priority group to be vaccinated before their next contract.

“Cyprus is determined to work constructively towards the deployment of a global seafarer

vaccination program in the most efficient way and is willing to be involved in discussions to determine a coordinated approach. We hope that regulators and industry alike will be willing to join us."

Critical for this program to work is the recognition by governments of seafarers as key workers that play an important part in maintain global commerce.

10. Developing Wind Propulsion for Dry Bulk Carriers

Concept of how the rotors would look installed and deployed (Oldendorff)

By **The Maritime Executive** 01-27-2021 05:41:10

Oldendorff Carriers, one of the world's leading dry bulk lines, announced that it will participate in a joint development project to design and test wind-assisted propulsion technology for its dry bulk carriers. The project, scheduled for completion in 2022, is designed to break down significant barriers for the installation of rotor sails technology and pave the path for commercial-ready applications across the industry.

During the joint development project, Oldendorff which owns more than 100 vessels and with charters on average operates approximately 700 vessels will work with Anemoi Marine Technologies which has patented vertical rotors. Lloyd's Register and Shanghai Merchant Ship Design and Research Institute will also participate in the project to develop a wind-assisted propulsion solution for dry bulk carriers.

"This JDP, together with other ongoing projects in our company, is a testament to our commitment to the development and application of green technologies across our fleet," says Torsten Barenthin, Director Innovation of Oldendorff Carriers. "By partnering with the ship designer (SDARI), manufacturer (Anemoi), and Classification Society (LR), OC seeks to achieve a comprehensive functional application of wind technology that returns environmental and commercial benefits throughout our vessels' entire life cycle."

Rotors folded down to permit docking and loading of the bulk carrier (Oldendorff)

The project focuses on developing the designs of Anemoi's vertical rotors, which serve as mechanical sails, on the deck of an Oldendorff vessel. When driven to rotate, the rotors harness the power of the wind to provide additional thrust to vessels, reducing fuel consumption. To ensure the rotors do not interfere with cargo operations and air draft limitations, the sails are mounted with a folding system that enables them to be lowered from vertical into a horizontal position on deck

Once the design and study phases have been concluded, the results obtained will determine whether Oldendorff will proceed with the installation of the wind rotor technology aboard one of its vessels. By fitting vertical rotors on a 207,000 dwt Newcastlemax bulk carrier, wind propulsion would be tested on long haul voyages.

The rotor sails technology is a complementary solution suitable for combination with other green developments. Last year. Oldendorff also signed an agreement with the Massachusetts Institute of Technology's Center for Bits & Atoms to investigate disruptive improvements in ship design and propulsion to achieve the IMO 2030/50 goals.

Concept of the deployment of the rotors (Anemoi)

11. Dutch Cargo Ship Sails with New Wind-Assisted Technology

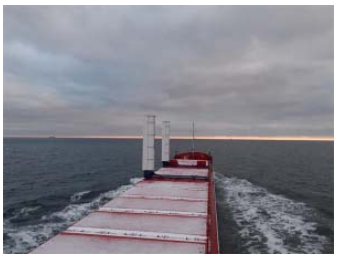
Rending of what the technology would look like when installed (Boomsma Shipping)

By **The Maritime Executive** 01-26-2021 08:01:21

Wind assisted propulsion is continuing forward as one of the technologies being explored to improve operating efficiency and the environmental performance of the shipping industry. In the latest example, a Dutch flagged general cargo ship began testing a new installation of two new compact fixed-wing units that can be easily moved into position or stowed.

The *Frisian Sea*, a 6,477dwt general cargo vessel. Made its maiden voyage to Vasteras, Sweden with the VentiFoils in operation. Owned by Boomsma Shipping, the eight-year-old vessel, which measures 388 feet in length, was retrofitted with the wind technology as part of a pilot program with eConowind. The installation was completed during a port call in Harlingen.

During the first voyage the Ventifoils were deployed and they also stowed them during the loading of the vessel. Start-up tests commenced on the systems and in the coming months they will be training the crew while optimizing the system and operations.



At sea during the first voyage after the technology was installed - Boomsma Shipping

Tessa Remery, project coordinator, explains, "With the help of the Wind Assisted Ship Propulsion (WASP) project, part of the EU Interreg North Sea region program, we will now test the performance during the coming two years. This innovative technology has to work in our daily operations with various wind conditions. We hope to find savings to be in the region of 10 percent."

The VentiFoils (Wind Assisted Ship Propulsion Units) are designed as optimal compact (non-rotating) wing profiles, creating superior thrust by means of the principle of boundary-layer-suction, for which ventilators are mounted inside the VentiFoils. Due to the generated thrust by the unit, the thrust of the propeller can be reduced to maintain the same speed leading to fuel savings and emission reductions.

"The installation of the Flatrack solution was relatively easy," said Ton Boomsma, co-owner and CTO of the company. "We now expect they will give optimal results on our ship. Once the crew gets some experience, we expect no trouble in handling the systems using our hatch cranes."

One of the elements of the Flatrack design is the flexibility of a container, being movable by the hatch crane. It also needs limited installation time and has the possibility for use on several vessels. With this system, the units can be positioned just in front of the superstructure during loading.

Stowed during loading - photo courtesy of Boomsma Shipping

Based on the experience with the Boomsma prototype, eConowind expects to make the product available to a broader range of vessels.

The WASP (Wind Assisted Ship Propulsion) project was funded by the Interreg North Sea Europe program, part of the European Regional Development Fund (ERDF) and brings together universities and wind-assist technology providers with ship owners to research, trial, and validate the operational performance of a selection of wind propulsion solutions.

12. Dutch Seafarers Appeal to Maersk Shareholders to Save Their Jobs

By The Maritime Executive 02-04-2021 07:54:25

Dutch seafarers facing job cuts after Maersk Line announced the sale of its Dutch ships are appealing to the shareholders of A.P. Moeller – Maersk to intervene to help save their jobs. Their open letter to the Maersk shareholders appealing for intervention with management is the latest step in a campaign launched in December 2020 and supported by Nautilus International, the international trade union for seafarers.

At issue are the jobs of 24 Dutch seafarers that were manning the company's Dutch-flagged vessels. Last year, Maersk announced that it was selling the last five vessels in its fleet registered in The Netherlands. After completing the sale-charter back deal for the ships, Maersk announced that 38 Dutch officers, captains and chief engineers, could continue their employment, but another 24 Dutch seafarers, mostly chief officers and second engineers, would be let go. Reports said these seafarers were offered the option of re-signing with the company under Danish seafarer employment terms that would reduce their pay by a third and result in the loss of pensions and other benefits.

"It is incomprehensible to us and our members that a profitable company like Maersk, with over 300 ships in service, would not be able to find jobs for all 24 Dutch seafarers on their fleet in addition to the Dutch Captains and Chief Engineers," said Nautilus International senior national secretary Marcel van Dam. "Our members do not accept this and demand that Maersk will withdraw all announced layoffs."

According to a statement from the union, the affected seafarers feel particularly let down by Maersk management due to their willingness to support the company including during the pandemic. The 24 crew members are reportedly asking to go to sea to replace other seafarers who have been awaiting their relief or are due for leaves that might have been postponed due to the challenges of crew changes during the pandemic.

In the letter to the shareholders of the company, the seafarers as asking for support to maintain the jobs. "Most of us have been serving with the company for over 25 years and strongly feel that Maersk is penalizing us to boost profits," they write. Maersk, they say, in its core principles highlights trust. "We, therefore, ask you to advise the Maersk management to stick to its own principles, so we can go back to work again," they write in the letter.

Nautilus also says that it had a memorandum of understanding on job security reached with the company in 2011. The union is calling on the company to honor this agreement and to reassign the 24 seafarers within the fleet.

13. Michelin Commits to Shipping Product Transatlantic on Sail Cargo Ship

The Neoliner would use sails for its main propulsion (Courtesy of NEOLINE)

By **The Maritime Executive** 02-11-2021 08:43:59

France's Michelin Group joined a growing number of global brands committing to use a sail-powered carbon-free shipping alternative for its products. Michelin announced that has signed a letter of commitment for maritime transport of containers of its pneumatic tires aboard NEOLINE, the French start-up that plans to build two cargo ships that will use sails for their main propulsion.

Calling it a "test initiative to help decarbonize Michelin's logistics operations," the French manufacturer committed to the transportation of containers of its product from Halifax, Canada to Saint-Nazaire - Montoir de Bretagne, France as soon as the first cargo sailboat is commissioned. NEOLINE plans to open its transatlantic service with a first vessel in operation by 2023 and a second vessel scheduled a year later. Michelin committed to gradually growing its business with NEOLINE to at least 50 percent of the group's containers transported on this route.

"This initiative and this new partnership promote innovation in the field of carbon-free transport," said Pierre-Martin Huet, Michelin Group Supply Chain Director. "This first step in carbon-free shipping is fully in line with the CSR strategy of Michelin's operations. It will contribute to achieving the objective of reducing CO2 emissions from logistics by 15 percent in absolute terms between 2018 and 2030."

NEOLINE's plan calls for the construction of two 446-foot long vessels that will get their main power from 4200 m2 of sails. Relying on wind as the main propulsion for its cargo ships, NEOLINE is promoting its services to shippers offering a 90 percent reduction in CO2 emissions related to transatlantic maritime freight transport.

The initial plan for the sail cargo ships to maintain service between Baltimore, Maryland via Halifax and the French archipelago of Saint Pierre and Miquelon and crossing the Atlantic to Saint-Nazaire - Montoir de Bretagne. Founded in 2015 after four years of study, NEOLINE says that it has simulated operational conditions based on five years of meteorological data to select the route which it can be operated with sailings every 14 days maintaining a commercial speed of 11 knots.

They are planning two pilot project ships as a demonstration and proof of the concept. The design for the ship includes duplex rigging and anti-drift fins, which NEOLINE says favor regular and efficient navigation under sails. These elements will also be retractable to allow access to a majority of ports.

Equipped with two loading ramps, the Neoliner is designed to load cargo units of various sizes and types of packaging in two loading spaces, fully protected and secured in the event of rough conditions. Capacities will be optimized by the use of mobile decks permitting the ship to load heavy or oversized shipments up to 200 tons and a height of 32 feet. The design has a carrying capacity of 280 TEUs, 5,000 tons of conventional cargo, or up to 1500 linear meters of ro-ro cargo such as 500 cars.

NEOLINE has international patents on the design. The company, however, is yet to place a firm construction order for the first pilot ship.

"We are honored to welcome on board the Michelin Group, an emblematic French player strongly committed to innovation and sustainable mobility," said Jean Zanuttini, President of

NEOLINE. “This first commitment concerns Eastbound flow (from the Americas to Europe) and comes in addition to an already well-filled order book in Westbound direction (from Europe to the Americas). With our sailing cargo ships, we are developing a mode of transport that is more environmentally friendly, adapted to the current economic and logistical reality of shippers, and not dependent on fossil fuels.”

In addition to the agreement with Michelin Group, NEOLINE has announced agreements with other major French industry leaders. including Groupe Renault, Groupe Beneteau, Manitou Group, and Jas Hennessy & Co.

Main Characteristics Neoliner

Length:	136 m (446 feet)
Width:	24.2 m (79 feet)
Water draft:	5.5 m (port) / 14 m (offshore) (18 feet / 46 feet)
Air draft:	67 m / 41 m (tilted masts) (220 feet / 135 feet)
Displacement:	11000 t
Deadweight capacity:	5000 t
Total sail surface:	4200 m²
Power (diesel-elec.):	4000 kW
Commercial speed:	11 knots
Max. engine speed:	14 knots
Crew members:	14
Ramp capacities:	9,80m (height) by 12,60m (width)

(abridged)

AIMS OF THE ORGANISATION

- **TO WORLDWIDE PROTECT THE PROFESSIONAL INTERESTS AND STATUS OF EUROPEAN SEAGOING SHIPMASTERS.**
- **TO PROMOTE MARITIME SAFETY AND PROTECT THE MARINE ENVIRONMENT.**
- **TO PROMOTE ESTABLISHMENT OF EFFECTIVE RULES WHICH PROVIDE HIGH PROFESSIONAL MARITIME STANDARDS AND PROPER MANNING SCALES FOR VESSELS UNDER AN EUROPEAN NATION FLAG.**
- **TO INFORM THE PUBLIC IN THE EU ABOUT DEVELOPMENTS IN THE EUROPEAN MARITIME INDUSTRY AND THOSE CONCERNING SHIPMASTERS IN PARTICULAR.**
- **TO CO-OPERATE WITH OTHER INTERNATIONAL MARITIME ORGANISATIONS.**
- **TO RETAIN AND DEVELOP THE HIGHEST MARITIME KNOWLEDGE AND EXPERIENCE IN EUROPE.**
- **TO BE INVOLVED IN RESEARCH CONCERNING MARITIME MATTERS IF APPLICABLE IN CO- OPERATION WITH OTHER EUROPEAN INSTITUTIONS AND/OR ORGANISATIONS.**
- **TO ASSIST MEMBER SHIPMASTERS WHO ENCOUNTER DIFFICULTIES IN PORTS WITHIN THE REACH OF NATIONS REPRESENTED BY CESMA MEMBER ASSOCIATIONS**
- **TO PROMOTE THE SEAFARING PROFESSION IN EU MEMBER STATES**