The Porthole

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The newsletter of
the Company of Master Mariners of Australia,
South Australian Branch
PO Box 1, PORT ADELAIDE, SA 5015
Branch Patron: Her Excellency the Honourable Frances Adamson AC

Branch Master's Comments

Good day to all our Members and other readers.

The March monthly meeting coming up next Wednesday will be the last one before the Federal AGM. Should any Member have any business that he wishes brought up at that meeting, please let me know at our monthly meeting, or by email, so that I may bring it up at the AGM. I will also raise the fact that, at the time of the April meetings, I will be in Budapest, but will be back for the May meetings.

Any Federal news that I have is to do with the AGM concerning hotel bookings, etc. The important stuff, such as the agenda for the meeting, etc., has been emailed to Members by Ian.

One other issue of note is that Ian and I have been invited to meet with the State Governor at Government House on Wednesday, 29th inst., before our Branch meeting.

Our monthly Branch meeting is, as usual, at the Largs Pier Hotel at 11:45 for 12:00, with the Court meeting an hour before that.

Looking forward to seeing as many of you there as can make it.

Happy sailing,

Bob W (SABM)

The next Branch meeting will be held at
the Largs Pier Hotel, 198 The Esplanade, Largs Bay,
on Wednesday, 29th March, 2023, at 1145 for 1200.
Please confirm your attendance at the lunch or register your apology
before 12:00 on Monday, 27th March 2023
with Bob Westley (0427 644 947) or Ian Dickson (0418 807 788)

In this issue

Beating up ship operators Michael Grey	2
Estonia *sinking investigation reaffirms "bow visor" theory*	2/3
Contingency afloat Michael Grey	3/4
Skinning a cat-potential ways to reach mandatory emission levels	4/6
P&O Logistics conversion of a module carrier to a cable layer	6
FESCO launches Indian service	6
MOL redefines poop deck in alternative fuel search	7
Busan to install high bay container storage system	7/8
Spanish authorities on alert as ship-to-ship transfers soar nearby	8
Australia bans MSC Kymea II *for 90 days*	9
Breathalyser tests mandated for all pilots in Taiwan	9
China's first hydrogen fuel cell-powered ship starts operations	9
Close call in Panama Canal locks raises safety concerns	10
International inspectors target "worst flag" ships	10/11
Short sea Ro-Ro fitted with two rotor sails after refit	11
Research vessel falls over in dry dock; 25 injured	11
Branch Members Only	
Branch meeting 22/02/23 minutes	12/13

The Company of Master Mariners of Australia Ltd. is a Company established to promote and further the efficiency of the Sea Service generally, and uphold the Status, Dignity and Prestige of Master Mariners in particular.

Beating up ship operators

By Michael Grey

We need the shipping industry more than ever – it's essential to modern life, so why do so many different interests spend their days beating it up? It was a question that occurred to me when reading about the latest draft guidelines about measures to reduce the impact of underwater radiated noise, which (the guidelines, not the noise), have emerged from the International Maritime Organisation. These will have been promoted by the burgeoning number of NGOs which seem to have inserted themselves into an organisation which, we ought to remind ourselves, was once primarily engaged in the improvement of maritime safety.

It's not that we should be ignoring the noise that humans have been making in the seas and oceans ever since the first mechanically driven ship appeared. Maybe it even predates this; you might imagine the dolphins of the Mediterranean becoming quite agitated at the threshing of all those banks of oars splashing around the fleets of triremes in classical times. And submariners tell me that noise from propellers and on-board machinery can be detected at very long ranges.

I have never been underwater in a submarine, but if you dine aboard the Master Mariners' HQ ship Wellington, in the old boiler room well below the surface, you can clearly hear the noise of the passing commuter craft and pleasure boats as they pass. But whether this sort of thing annoys or confuses sea creatures, one can only surmise, although the activists are quite dogmatic about the subject. And the issue is now being seized upon to proscribe other maritime activities, like offshore windfarm development, on account of the underwater noise it all makes.

It won't be cheap to mitigate either, although it is said that better propeller design reducing any cavitation makes things quieter (while improving performance). Covering the screws in graphene, or boring holes in the blades, are strategies also being advocated by some experts. Ships might have to go even slower or undertake massive diversions to avoid confusing sea creatures. Initially, there will be the requirements for yet another "management plan", which must be completed, along with all the rest of the endless strategies that tabulate proposed emission reductions, count the number of barnacles on the bottom, and itemise the impact that the ship will make upon the environment from the day her keel is laid to the final snapping of the scrappers' shears upon her remains. And that is just the start.

But to most ship operators who learn of these new problems, the reaction will probably be one of weary resignation – a sort of "what on earth will they think of next to make it harder to earn a crust running ships?" And you might be able to sympathise with these thoughts, although they won't be able to voice them out loud, lest the legions on anti-social media descend upon them, with enraged activists gluing themselves to their office doors.

If you study the cumulative burdens that have descended upon the shipping industry over the decades, and I have been looking at it for more than sixty years, there is a sort of malign pattern that seems to be followed by so many of these technical advances that are devised to mitigate shipping's impact upon the planet, or, indeed, many of the developments per se. It's not that they are bad in themselves – it is just that they very often have unforeseen consequences, or once out at sea, just don't work as they should. Think of the mess we got into over antifouling with one type of coating being required to prevent harming marine life being found even more harmful than that which it replaced. Ballast management systems which, er, fail to manage ballast sufficiently or fall to bits because of the corrosion. There are terrible memories of oil separation equipment that just didn't perform as it was advertised.

More recently there arrived scrubbers which seemed to work perfectly but could not be used because of objections from coastal states. Ships were forced to employ cold ironing using electricity from coal-fired power stations. It's a list as long as your arm, of equipment or procedures that were prescribed for all the right reasons, but for some reason, failed to deliver the goods or otherwise disappointed with unforeseen snags. It sometimes seemed that the wretched shipping industry was seen as a bottomless pit of money or was just a test bed for regulatory experimentation.

It doesn't fill the average ship operator with a great deal of confidence as the next generation of shipping is expected to cascade the industry down to the nirvana of "net zero" fuels, with some of the new fuels appearing to contain very lean energy or offer some quite frightening characteristics. You will think of your own concerns about this energetic progress, but if I lived near the docks, I might have something to say about a ship with a gigantic tank of ammonia parked on the afterdeck, berthed just over the dock wall. That one hasn't come up yet, but maybe it should be considered.

Michael Grey is former editor of Lloyd's List

Source: Maritime Advocate 824

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Investigation Reaffirms "Bow Visor" Theory for Sinking of the *Estonia*

Estonia, seen here in previous livery as the Viking Sally
(Mark Markefelt / CC BY SA 4.0)

852 lives were lost when the Estonia sank in 1994. The cause has been a matter of debate for decades.

Published Jan 23, 2023, 2.30pm by The Maritime Executive

Thirty years after the ferry *Estonia* went down in the Baltic, the deadly sinking is still the most controversial maritime disaster in Europe. The vessel's loss in heavy weather off Finland was initially blamed on the loss of the ship's bow shield, the hinged visor that gave access to her wide ro/ro decks. But the accident was also shrouded in official secrecy: authorities forbade any dive visits to the wreck site and even made plans to cover it in concrete.

Victims' families and independent researchers have long maintained that some-

thing else - something less innocent - might have been to blame, like an explosion or a collision with a submarine. Unauthorized ROV explorations in 2020 revealed that the wreck had large openings in its hull, perhaps indicative of damage sustained before the sinking.

This week, a new joint Estonian, Finnish and Swedish investigation pushed back on these controversial claims and endorsed the original conclusion - bow visor failure. In a preliminary report, the team determined that the vessel was "not seaworthy" before she ever departed the pier.

Using source material from previous investigations, extensive site surveys, and new interviews with survivors, the team homed in on the construction of the bow visor and the damage it sustained.

At the time the ship was designed, its class society had no load calculation rules or inspection requirements for bow visors. Lacking guidance, the naval architect used the load calculations for standard non-opening bows. The design called for mild steel construction throughout, even for the attachment mechanisms, which were subject to high loads.

In addition, the yard deviated from the plans: two flat bars shown in the design for the bottom of the visor were not installed; some welds were missing or defective; some details had been "changed using a cutting torch"; and part of the hinge arrangement "differed considerably from the manufacturing drawing."

After the sinking, divers found the bow visor on the bottom, detached from the ship and badly damaged. The visible damage to the visor was consistent with failure from heavy loading to its attachment points, the team concluded. Two of the hinges were broken off and three locking lugs were torn loose, and the welds showed "poor fusion and lack of penetration."

Similar issues were found aboard *Estonia's* sister ship, the *Diana II,* and other Baltic bow-loading ferries. The problem was known before *Estonia* was ever built: a 1974 safety report concluded that “nearly all locking devices of bow doors on existing vessels are too weak."

The design of the interface between the visor and loading ramp also contributed to the sinking. The ramp was so long that it extended above the deck level of the visor, breaching safety rules for the design of the collision bulkhead. The top of the ramp was enclosed in a compartment built into the visor's forecastle deck. When the visor broke loose, the compartment came to rest on the top of the ramp, ripping it down and letting water flood the car deck.

This design element should have required a special exemption from safety rules, but *Estonia* never received one - and she was therefore unseaworthy, the inspectors concluded.

The report also refutes claims about any collision damage. Previous unauthorized ROV dives revealed large holes in the hull, which had never been identified or discussed in the original official investigation. The new joint investigation team determined that the structural damage corresponded to the terrain at the *Estonia's* final resting site, and the holes were created when she hit the bottom.

The preliminary report does not fully address the extreme deformation of the bottom of the visor. The paint was entirely missing from the section's bottom, and the wrecked plating had three-dimensional patterns of tearing, folding and twisting - impossible to create through impact, but typical of explosion damage, according to metallurgists consulted by news outlet Fokus Estonia.

The official joint report released this week found that parts of the visor's steel were exposed to high heat during construction or maintenance, and it included metallurgical analysis of select samples from the wreck. The investigative team concluded that there was no evidence of an explosion.

Source: Maritime Executive 230123 —oo00oo--

Contingency afloat

By Michael Grey

There has been very little to cheer the spirit in recent weeks with so much death and destruction radiating from the Turkish earthquake and its aftermath. The images from southern Turkey and war-torn Syria have been heart breaking, with the displacement of so many survivors from the catastrophe, and the widespread ruination. Just how to react constructively to such tragedy defies human ingenuity.

But it was heartening to see that the giant shipping company MSC was rising to the challenge by sending the big ferry Aurelia from Naples to the shattered port of Iskerdun, laden with medical supplies, foodstuffs and the availability of 1000 beds aboard, along with her catering facilities and on-board help for children. Once again, it underlines the ability of ships to make a really practical and substantial difference, when all appears to be lost.

When you come to think of it, a ship configured as a ro-pax ferry is the perfect candidate for emergency response, assuming the need for it is within reasonable distance of the coast. Such a ship, with a stern access and ramp can be tied up with a Mediterranean moor; anchors deployed and stern to the quay, requiring very little in the way of quay length, to operate effectively.

Once discharged, the cavernous vehicle space can be a safe space for medical facilities or anything else that is needed, while the self-sufficiency of the ship in terms of power supply and provision of food, heat and light will surely be welcome. And on an overnight boat, the provision of up to 1000 beds is not to be sneezed at when so many people are existing precariously in tents ashore. It is also notable that the Turkish government has moved a number of domestic ferries to the affected areas, although smaller ships will be limited in the scope of relief they can provide.

Ships can make a real difference, and in the short term, as has been proved in past emergencies, which come around rather more often that we might think. Look back to Hurricane Katrina in New Orleans, the devastation in Haiti and the regular catastro-

phes in the Asian "earthquake zone" if you are looking for examples. Big overnight ferries have been highly effective at housing Ukrainian refugees, in a number of European ports. And while it is truly excellent that there might be such practical examples of corporate charitable giving, as we have seen following the earthquake in the Eastern Mediterranean, there is surely a case to be made for a more structured and precautionary approach to such disasters, noting their frequency around the world and the sheer scale of human need on a regular basis.

Is there not a case for "contingency", with a number of capable ships, acquired and pre-loaded, to be stationed in strategic areas around the world, which the statistics of disaster can easily identify. The US military "pre-positioned" fleet might not be fully appropriate as an example, but at least this sort of organisation gives a clue about the approach that might be taken. With the right sort of management, such a "First-Aid" fleet could make a difference in the speed of response to disaster, while scaling up in weight and capability provisions that even the largest aircraft will have difficulty matching in the short term.

If the will to provide such assistance was there, which agency could one envisage actually running contingency assets? Probably best to rule out anything to do with the United Nations or any body which relies on bureaucracy, committees and consensus. Can one envisage a sort of maritime arm of International Rescue, or the Red Cross Afloat, capable of speedy response, with the emphasis on practical assistance? As for the procurement of suitable ships and their care. maintenance and operation on-site, you cannot really think of anything better and less complicated than one or more of the biggest ship management companies, which have the experience and international manpower available on tap.

It ought to make sense and ought not to cost a vast sum of money, if it was not wasted on shipbuilding, but in the acquisition of decent, middle-aged overnight ro-pax ships. You might argue (as I have) that redundant cruise ships could do the job, but they really need to lie safely alongside, which might be difficult, and they don't have capacious vehicle decks. But quite how you get such a scheme off the ground and onto the sea, with the necessary international support and funding, it really is beyond my pay grade to suggest. It might be a useful, (rather than a wasteful) element in developed nations' aid budgets, but it would be interesting to hear some views on why such a scheme would be impossible.

Michael Grey is former editor of Lloyd's List.

Source: Maritime Advocate 825

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Skinning A Cat

Industry, Marine News February 6, 2023

"Appraisal is not just about data, or the amount of data available, it's the appraiser's proper interpretation of what is available that produces a good opinion of value." (Unknown source)

This is part 1 of a 2-part blog that looks at various ways to potentially reach mandated GHG emission levels aside from new construction, and what this new technology means to marine surveyors, appraisers, and lenders.

I have written several blogs on the hottest subject in the green battle: the fuels of the future and how they are being received by ship owners and operators. LNG is still a shaky option because of its current high cost and nowhere near zero-emissions, not to mention there will be easy access to better fuels five to fifteen years in the future. Yet the first phase of the new EEXI and CII regulations came into effect January 1, 2023. In 2023, emission related statistics will have to be gathered, and based on those statistics, the vessel will ultimately receive a grade. After that point, vessels will need to produce emission statistics that will enable them to be in the A, B, and C grades of their CII rating by January 1, 2025, to be competitive; therefore, high on the list for receiving charters from green shippers, and insurance and financing from the signatories of the Poseidon Principles. Those who fail and remain in the lower grade level will have to produce a plan on how they will reach an accepted grade. Those with a grade of D have three additional years to comply, while those with the lowest grade of E will have one year. Non-compliance could mean lack of employment or even loss of certification.

Lenders on older ships may rightly be concerned if their asset will have an acceptable market value in five years. While this regulation is from the IMO and involves all vessels over 5000 gross tons, the GHG emissions trickle-down will have some effect in all markets.

Presently in the U.S., the ports of Los Angeles, Long Beach, and Minneapolis have passed some type of Ship It Zero resolutions. This will be pushed by the nineteen members of Cargo Owners for Zero Emission Vessels (coZEV). Among the nineteen companies are Phillips, Target, IKEA, DuPont, Michelin, Unilever, and Patagonia.

This blog will look at emission reduction options that are not only available now but are less expensive than new construction or retrofitting dual-fuel engines and can be retrofitted at a more reasonable cost and time frame than new construction. Some of these options may be attractive to any operator's budget. With new fuels becoming more mainline in the next five years, biofuel costs are expected to be from 2.5 to 4.0 times more expensive than present fuel costs.

The major non-fuel options in the basket are as follows:

- Slow steaming
- Wind power and types
- Weather route planning
- Optimized hull, rudder and propellor shapes
- Hull vanes
- Hull coatings to reduce drag and prevent bio fouling, air lubrication.

- Propulsion drive train products; power takeoffs; waste heat recovery

On board computerized power management

Slow Steaming

Slow Steaming is the prime option for everyone and has been in use for years to reduce fuel costs and to increase tonne-miles. If ships are moving slowly on a voyage, it will take more ships to deliver the same amount of cargo. While it seems to be a no-cost way to drop a vessel's GHG emissions by saving on fuel and its costs, it is not something that makes brokers and charterers happy. On a daily rate, why pay for a ship that takes twenty days to deliver your cargo when you can pay the same or a bit more for a 15-day voyage? The more voyages made, the more cargo carried, the more income earned.

With the pressure of CII, owners/operators may want to mix in a bit of slow steaming while charterers and brokers are now trying to produce charter parties that spread the additional time costs among all that benefit by compliance. This will be a major problem for time charterers. For small owners on the edge who cannot afford upgrades, slow steaming may be their only way to get a few additional years out of their vessel(s). Lenders should be aware of an owner's plan for CII compliance and if they have the funding to carry out the plan. The plan will be recorded in "Statement of Compliance", a part of the ship's Ship Energy Efficiency Management Plan (SEEMP).

Types of Wind Power

Wind power has been growing quickly with different designs and actual installations. The rotor sail was invented by Anton Flettner in the 1920's and the use of the Japanese wind propulsion sails were introduced during the high fuel prices of the 1980's.

The use of wind assist has been installed on vessels that are on standard runs in the Atlantic and Pacific that generally match the trade routes of the sailing ship era. These are routes where the prevailing, or trade winds, are common. A source connected with the wind assist industry states that, to date, there are currently fifty ships in the world with wind assist capabilities and another fifty being built for delivery by the end of 2023. As of now, the reports of fuel savings have been from interested parties and have been based on very specific ships and routes.

Rotor Sails

Rotor sails are vertical pipes, somewhat like the shape of the cardboard centre of a roll of paper towels. They are of various diameters ranging from 18 to 35 meters (35' to 155') in height. When the sail is set spinning by a low horsepower source, it produces what is called the Magnus effect. This is somewhat like the lift effect of an airplane wing where, in this case, the lift helps push the hull forward allowing main engines to be throttled back. Fuel savings and emissions have been proven to be reduced between 5% and 20%; although this savings varies greatly with the size of the ship, its desired speed, and, particularly, its routing. The first test runs were done with a single rotor but now vessels are being fitted with up to four rotors in varied configurations.

Adobe stock image

You can see that the height of these rotors can be a hindrance in some circumstances when handling cargo. They can be used on some tankers, possibly car carriers, and on some bulk carriers. There are already designs where the rotor is hinged at the base and can be mechanically laid down to allow passage under bridges and clear shore cranes and unloaders. The use and control of the rotors is through manual or computerized bridge controls.

Sails

Technologically, there are too many variations of sail power to list. They run from a single mast on the bow with a single square sail, to three to four masts in line with single, or three to five multiple square sails, looking a bit like something out of the 1800s. The sail material varies among hi-tech synthetic cloth, synthetic materials such as polymer composite, fiberglass or carbon fibre hybrids, and Michelin's inflatable wing sails. The taller masts can be telescoped to reduce sail and some masts can also be folded. Some of the sails have furling mechanisms. There is one design where the masts are all on one side of the ship so that they won't interfere with cargo operations.

Wind Ships, Photo Credit: Oceanbird

These systems can be computer controlled and many of the designs use a form of the balestron rig which is a 360-degree pivoting mast/boom hybrid. A new Ro-Ro vessel is being built with two of these types of sails. For this vessel, the first mast has been built of carbon fibre, is 260' high, and weighs twenty tons. The engineering involved for all these new designs is amazing. On the other end of this technology is a Chinese design that is smaller and simpler and somewhat resembles the Chinese junk sail design. However, this simplicity of size and design comes with a reduced fuel savings estimated to be about 4%. These hi-tech sail systems can

produce a reported savings in fuel costs of 5%-20% similar to rotor sails.

About a year ago in a blog on fuels, I noted LNG was ahead in the alternative fuel race. It is still ahead, but with the cost of LNG and its methane by-product it is losing ground. Some say that wind assist has moved up to second place and will be the focus in construction and retrofitting in 2023. This is a comparatively easy solution while the industry waits for infrastructure to be built for the desired alternate fuels methanol and ammonia. Even then, sail assist can reduce consumption of those fuels.

While these systems can help the vessel on which they are installed reach a better CII rating, it is possible that, considering building and maintenance costs, the more complex systems may not provide overall expense savings over the next five to ten years. However, they may have served their purpose by providing desired GHG emission levels and a reasonable operating cost while awaiting wider access to the new fuels.

Kites

Kites used for ship wind assistance are the simplest and least expensive of the wind assist systems. While called kites, they look much more like parasails. They are stowed on the bow of the ship and, in favourable winds, are deployed via a synthetic line and a winch. It has been found that an effective height for kites is about 180 meters (600'). Unfortunately, when launching or recovering a kite, there is a tricky area just off the water where the motion of the ship and air current coming off the sea and ship put an additional strain on the system. Therefore, the bow winches used in the system are similar to the heave compensated cranes used offshore so that the winch automatically reacts to tension on the kite line. An Airbus subsidiary, AirSeas, uses kite assist on four of their vessels. Again, reported savings can be up to 20% depending on the size of the ship, its desired speed, and its routing.

As you can see, it may be possible to reach mandated GHG emission levels by harnessing the power of the wind and seas. Next, I'll discuss additional technology on the table and what all of this means to lenders, appraisers, and surveyors. Stay tuned for "Skinning the Cat" Part 2!

-Norman Laskay

If you'd like to keep this conversation going, please email me at nlaskay@DLSmarine.com

Source: Flashlight 243 —oo00oo--

P&O Maritime Logistics converting module carrier to cable-lay vessel

Adis Ajdin February 21, 2023

DP World's P&O Maritime Logistics has announced plans to convert one of its module carrier vessels into a cable-laying vessel (CLV) to connect offshore wind farms with the mainland.

P&O Maritime Logistics

The vessel will be the first of its kind within the company's fast-expanding portfolio of specialised offshore products and services. It will feature an ultra-shallow draft, engineered grounding capability, and a 4,000-tonne cable load capacity.

Set to start operations in the third quarter of 2024, the company's newly converted vessel will be equipped with a battery system, as well as a low-fuel consumption propulsion layout for green methanol fuel.

Martin Helweg, CEO of P&O Maritime Logistics, said: "The conversion of our vessel is a real step change. It means, apart from expanding our existing services and products into a more specialised offering, that we can also make a positive contribution to the decarbonisation of our industry. One way of doing this is by using alternative energy to power the converted vessel. The other important contribution is that the CLV will predominantlly support the construction, development, and maintenance of existing and prospective wind farms. Lastly, and by repurposing an existing vessel, we are able to extend the lifetime of this particular product quite significantly to keep up with the increasing demand in the sector."

Source: Splash247 230221 —oo00oo--

FESCO launches India service

Sam Chambers February 27, 2023

FESCO, Russia's top container name, is increasingly seeking routes to the country's most important trading partners in the wake of many markets shutting shop to the warring country.

FESCO's latest service offering departs Novorossiysk, and calls at Ambarli in Türkiye, and on to Nhava Sheva and Mundra in India.

FESCO's Indian Line service will have a fortnight frequency and the average transit between Russia and India is expected to be approximately 25 days.

"FESCO continues to expand the geography of transportation and improve the efficiency of its container services, taking into account the transformation of international supply chains," stated Andrey Severilov, FESCO's chairman.

Trade between Russia and India has leapt by nearly 400% since the war in Ukraine started on February 24 last year.

Source: Splash247 230227 —oo00oo--

MOL redefines poop deck in alternative fuel search.

Sam Chambers February 22, 2023

Japan's largest shipowner has signed a memorandum of understanding with compatriot firm Air Water to jointly study the trial use of liquefied bio-methane (LBM) derived from cattle manure in LNG-fuelled vessels. Other shipping lines, notably CMA CGM, are also looking at LBM at the moment.

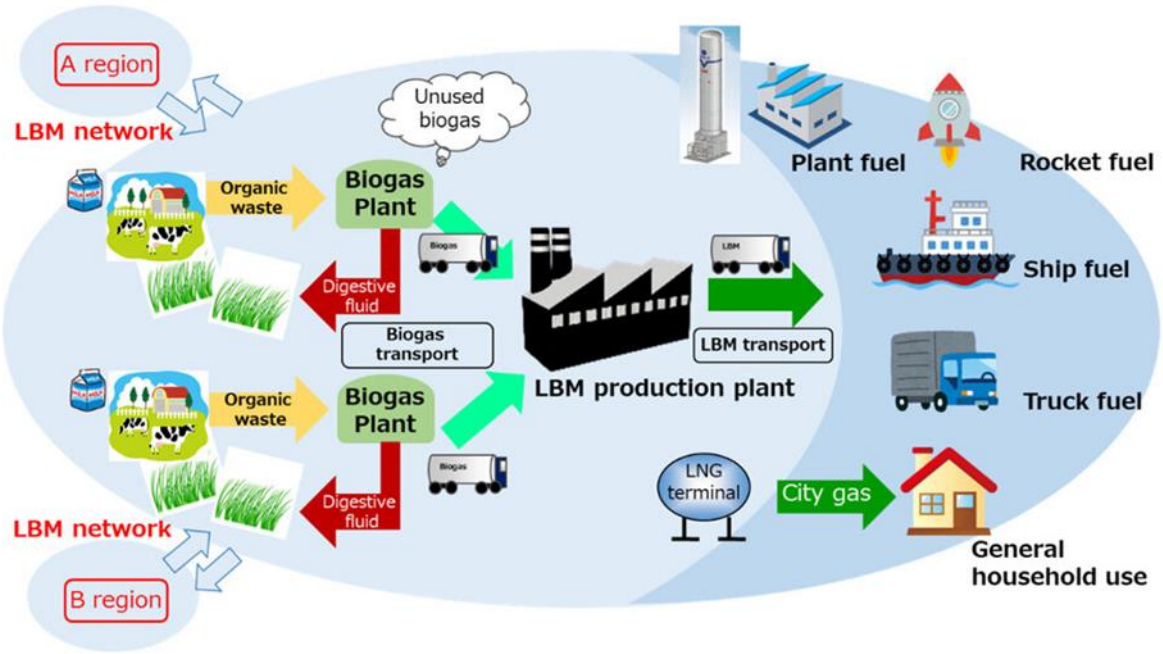
Cattle manure. Mitsui OSK Lines' (MOL) exhaustive search for alternative fuels has now gone to the farm.

This joint study in Japan will be conducted as part of an LBM technology research and development program approved by Japan's Ministry of the Environment and promoted by Air Water. LBM is produced from cattle manure in the Tokachi region of Hokkaido by Air Water. The two companies will confirm that LBM can be transported, supplied, and used without problems using existing shore and onboard equipment. The goal is to use LBM on a coastal LNG fuelled vessel in the first half of this year. This will be the first use of LBM as marine fuel in Japan.

In October last year, Air Water started operation of its first plant in Japan to produce LBM, an alternative fuel to LNG that uses unused biogas produced from cattle manure. It is also working on supplying LBM to food factories and LNG fuelled trucks.

LBM is made by liquefying bio-methane at about -160°C generated from dairy-owned biogas plants, separating and refining its main component, methane. Methane can be compressed to 1/600th of its volume by liquefying it, so this enables the mass transportation of methane.

MOL is pressing ahead with many alternative fuel projects including ammonia, hydrogen, and methanol, while also developing its own hard sails as well as pursuing less conventional forms of energy including converting microplastics it picks up from the sea into energy resources similar to wood pellets.



Busan to install high-bay container storage system

Sam Chambers March 10, 2023

DP World has announced the first commercial use of its BOXBAY high-bay storage system at its terminal in Busan, South Korea.

A contract was signed between Pusan Newport Corporation (PNC) and Boxbay FZCO – a joint venture of DP World and German plant technology supplier, SMS group – initiating the design and engineering works for the site.

DP World developed BOXBAY in a joint venture with SMS, who originally created the storage system to handle heavy metal coils. Having proven the technology in the metals industry, it was refined for port logistics. DP World and SMS built a pilot facility at Jebel Ali's Terminal-4 in January 2021. By the end of June 2022, 190,000 container movements had been carried out under realistic operating conditions to verify the market maturity of the system.

The BOXBAY high-bay storage technology will be integrated in Busan along with the existing mode of ARMG/truck operations as a retrofit on an existing empty storage area. The system allows direct access to each container at any time, eliminating 350,000 unproductive moves per year, BOXBAY claims. This will improve the overall truck servicing time by 20%.

BOXBAY is fully automated with additional safety features built in. DP World also intends to power it by using solar power, generated by photovoltaic panels on the roof of the storage system.

Sultan Ahmed Bin Sulayem, group chairman and CEO of DP World, said: "If we were to imagine the future of trade, this is where it begins. We have taken a technology that has proven its effectiveness in the metals industry in Germany and further transformed it to create BOXBAY, an innovative container storage system to enhance global trade. Our pilot scheme in Jebel Ali has already shown the advantages of a fully automated, sustainably powered high-bay storage system."

Source: Splash247 230310 —oo00oo--

Spanish authorities on alert as ship-to-ship transfers soar nearby.

Adis Ajdin February 22, 2023

Spanish authorities detained and charged a Turkish product tanker *Lagertha* for allegedly discharging oil in open waters of the Mediterranean near Tarragona port.

Ernst-Gert Schmidt / Marine Traffic

The Maltese-flagged ship owned by Besiktas Likid Tasimacilik was intercepted after a reported discharge that extended over an area of 12.7 sq km was detected earlier this month. The owners of the 2009-built tanker, previously known as *BK Superior,* will have to pay a bail of €100,000 ($106,680).

Separately, Spain detained a Vietnamese-owned product tanker, *Elephant,* during an inspection in the northwest port of Ferrol. The ship was involved in a ship-to-ship (STS) transfer with *Maersk Magellan* with cargo that originally came from the Cameroon-flagged vessel, which, until July 1, sailed under a Russian flag. Consequently, the Singapore-flagged product tanker operated by Maersk Tankers was denied entry into Tarragona port earlier this month.

STS activity involving Russian oil has increased dramatically in the Strait of Gibraltar near Ceuta. More than 50 operations were reported in the strait zone between the end of 2022 and February 8 of this year. The location is ideal for transferring oil from small tankers that can fit into Russia's Baltic ports to VLCCs that provide long-distance transport to Asia. This pattern has piqued the interest of EU regulators, especially since many Russian-linked tankers now use alternative insurers. The chances of obtaining a payout from a new Russian government-backed insurance fund in the event of an STS accident and spill are unclear.

According to the analytics platform Vortexa, Chinese operators have accounted for 65% of STS activity offshore Ceuta since December. The employment of Chinese-operated tankers offshore Ceuta also points to a large volume of Urals transferred there eventually heading to China.

"Looking ahead, we expect rising STS activity offshore Ceuta as other VLCCs join those currently loading Urals for China, to support or even build on current levels for Russian Urals exports to China. The STS transfers to VLCCs allow for better economies of scale (lower costs) and avert overheating of the feeding Aframax and Suezmaxes classes. The potential increase in Chinese-operated VLCCs (engaged in Urals STS transfers) would likely boost the number of high-risk tankers congregating offshore Ceuta in the coming months," said Armen Azizian, crude market analyst at Vortexa.

Increase in crude oil STS operations in the Alboran Sea, excluding bunkering operations

Azizian added, however, that looking further ahead into the summer, once tides subside, there could be a reversion back to dark STS activity off the North Atlantic. "This would likely raise the complexity of tracking Russian Urals flows, as was the case in the summer of 2022," he said.

Israeli data firm Windward has detailed how Ceuta – an autonomous Spanish city on the north coast of Africa – has grown as an STS hub for Russian oil in the last year. Bordered by Morocco, Ceuta lies along the boundary between the Mediterranean Sea and the Atlantic Ocean. The area is also known as a hub for drug trafficking.

Source: Splash247 230222 —oo00oo--

Australia bans container ship *MSC Kymea II* for 90 days

Tuesday, February 28, 2023 - 11:00

MSC KYMEA II.
Photo courtesy MarineTraffic.com/Rutger Hofma

The Australian Maritime Safety Authority (AMSA) yesterday issued a refusal of access direction notice to the Liberian-flagged container ship *MSC Kymea II* from Australian ports for 90 days.

AMSA issued the notice following months of sub-standard performance from the ship's operator, MSC Shipmanagement Ltd (MSC), including critical maintenance issues.

AMSA has detained nine MSC ships over the past two years, including five ships in 2023 alone. Many of these detentions showed systemic sub-standard maintenance practices onboard.

The AMSA inspection of the MSC *Kymea II* found 21 deficiencies in total, including a defective free fall lifeboat steering system, defective fire safety systems, dangerously-stored flammable materials, and multiple wasted or missing railing safety chains used to prevent stevedores from falling from heights when lashing cargo.

Another MSC vessel inspected two weeks ago was found with a corroded fuel-oil tank air pipe, and the evidence suggests that the ship attempted to hide the seriousness of the defect from authorities by covering up the rusted pipe with canvas and painting over it.

AMSA Executive Director of Operations Michael Drake said the agency's inspection regime has shown that MSC has failed to meet its obligations to properly maintain its vessels.

"AMSA has zero-tolerance for sub-standard ships operating in Australian waters and we will not hesitate to ban vessels that fail to meet basic safety standards," he said.

"The Australian public has an expectation that ships operating in Australian waters meet or exceed the minimum international standards for safety and environmental protection. Ships should be on notice that this kind of repeated poor performance is not acceptable, and Australia will take action."

Source: AMSA News 230228

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Breathalyser tests mandated for all pilots in Taiwan

Sam Chambers March 22, 2023

A pilot who was found to be drunk on the job after a containership slammed into a pier at the Port of Kaohsiung on Monday has been suspended and all maritime pilots in Taiwan will now face mandatory alcohol breathalyser tests before starting work following the incident.

The 2006-built, 6,800 teu *Hyundai Tokyo* ploughed straight into Pier 77, causing sizeable damage to the concrete quayside at the island's largest port.

Port officials had noticed that the speed of the ship was too fast and sent a warning by radio before the incident occurred.

Source: Splash247 230322

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China's first hydrogen fuel cell-powered ship starts operations

Sam Chambers March 22, 2023

China's first ship powered by a 500 KW hydrogen fuel cell has been put into operation by China Three Gorges Corporation.

The service ship, *Three Gorges hydrogen ship No.1*, uses homegrown hydrogen fuel cells and a lithium battery system and will be used for transportation, patrol and emergency services in the Three Gorges reservoir area.

Many other countries are experimenting with hydrogen fuel cell technology. Earlier this week, European container line, Samskip, contracted India's Cochin Shipyard to build a pair of hydrogen fuel cell-propelled box ships.

Source: Splash247 230322

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Close Call in Panama Canal Locks Raises Safety Concerns

The Loadstar March 10, 2023

By Charlie Bartlett (The Loadstar)

OOCL Utah's near-collision on Sunday with a Panama Canal lock gate suggests a tragic and costly accident is waiting to happen, say experts.

A tugboat drags a Post-Panamax cargo ship during the first trial run at the new sets of locks on the Atlantic side of the Panama Canal, in Panama City, Panama June 9, 2016. REUTERS/ Carlos Jasso

Video footage shows a fore-positioned 'alpha' tug almost crushed between the Hong Kong-flagged containership and the canal's Agua Clara lock gate. There was no aft-situated 'delta' tug to stop the vessel.

Representatives of the Panama Canal Captains and Deck Officers Union told *The Loadstar* how a lack of procedures and under-resourcing by the Panama Canal Authority (ACP) left pilots – paid per vessel – calling the shots.

"They [pilots] want to finish fast, because the more assignments they get, the more money they make. The fault cannot be attributed to the ship.

"[The pilot] was told the [stern] tug was coming from another job but chose not wait. There are no procedures and no regulation, so [the pilot] can do whatever he wants.

"This is the closest call we've had so far in a train of incidents over the past two years. In one, a tug was put aground, another put on the rocks and out for repair for three months."

They claimed pilots often try to tackle the canal at speeds in excess of what is safe for tug crews. In the case of the alpha tug on Sunday: "We can say the crew was in jeopardy because of the enclosed space and the size of the ship," they said.

"If the ship strikes the tug, it's going to go under. There are no ladders, [the tugs themselves] are death traps but if you fall in the water there, you're going to get sucked under."

If there had been a collision with the canal lock gate, it could have put the waterway out of action for months, causing supply chain disruption approaching the scale of the *Ever Given* incident at Suez in March 2021. In the Panama Canal, the lock gates "…are not like the ones we had on the old locks. These move on rails, and if a gate gets out of that rail because a 100,000 tonne ship moving at 2.5 knots hits it, it's going to get stuck. And we do not have the equipment to lift that gate right now.

"Actually, we do not know how they could fix that problem. So, it would be a big disruption for global supply chains."

As well as a speed limit and a list of procedures for pilots that would specify tugs fore and aft, the union is pushing for better resourcing and better-equipped tugs, saying there are not enough crew to cover the needs of the canal. Crews work in excess of 16 hours a day, seven days a week, with no mandated rest periods, one source claimed.

"There is no maintenance of the tugs, there are few personnel… we are not immune to fatigue."

The incident involving the *OOCL Utah* comes as the ACP is now implementing a new 'disruption charge' of up to $250,000 in the event of a serious incident.

The ACP has so far declined to respond to requests for comment.

The Loadstar is known at the highest levels of logistics and supply chain management as one of the best sources of influential analysis and commentary.

Source: gCaptain 230311

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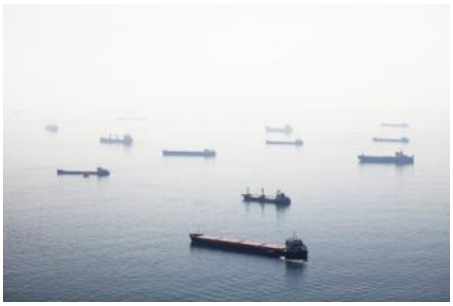
International Inspectors Put 'Worst Flags' in the Crosshairs

Mike Schuler March 17, 2023

ITF targets the four worst flags in bid to scrap unsafe shipping from Mediterranean Sea.



Cagri Kilicci / Shutterstock

Inspectors from the International Transport Workers' Federation (ITF), seafarers' unions, and port authorities will target up to 1,000 ships flagged to the Cook Islands, Palau, Sierra Leone, and Togo for safety, maintenance and seafarer welfare inspections in the Mediterranean Sea over the next eight weeks.

The move comes after the four Flags of Convenience registries were linked to more than 100 crew abandonments in the past two years and over $5.5 million in unpaid wages. The Cook Islands, Palau, Sierra Leone, and Togo flags have also been responsible for over 5,200 deficiencies or detentions issued by European Port State Control enforcement agencies.

"Substandard shipping in the Mediterranean Sea is driving down seafarers' wages and conditions, it's endangering the lives of crew and risking our environment," said ITF Inspectorate Coordinator Steve Trowsdale. "These flags take money from shipowners to register ships that other countries

wouldn't touch. Many are old vessels and are poorly maintained by their owners. Many of these ships are dangerous and should not be trading."

France's Port State Control agencies will also join the campaign.

"These are now the worst flags operating in the Mediterranean Sea," said Seddik Berrama, General Secretary of Algeria's transport union FNTT and ITF Vice President for the Arab World region. "The world's major Port State Control agency groupings have said these flags are not quality. They have said they are high- or very-high risk. That is unacceptable for crew safety just as it is unacceptable for those of us who rely on a clean sea, like our port communities here in Algeria."

"Our goal is to expose the substandard shipping examples that we see regularly in our ports. If we are able to spread word of the abuses experienced by crew onboard are too often ignored by these flags, then we will send a strong message that substandard shipping is unacceptable," Berrama added.

Source: gCaptain 230318 —oo00oo--

Short Sea Ro-Ro Returns to Service Sporting Two Rotor Sails

Mike Schuler February 27, 2023

The world's largest short sea roll-on/roll-off vessel has returned to service sporting two new rotor sails that will help to reduce fuel consumption and carbon emissions by harnessing the power of the wind.

Photo courtesy CLdN

European logistics and short sea shipping provider CLdN announced that successful installation of the 35-meter-tall by 5-meter-wide Norsepower rotors sails aboard its 2018-built *M/V Delphine*.

AIS data from MarineTraffic.com shows the vessel departed Zeebrugge, Belgium, on Monday morning.

Norsepower rotor sails are a modernized version of the Flettner rotor, a spinning cylinder that uses the Magnus effect to harness wind power and provide forward thrust.

With a cargo capacity close to 8,000 lane meters, *Delphine* is the largest Ro-Ro vessel in the short sea shipping sector. Serving the UK, Ireland, and mainland Europe, it is already one of the sector's most efficient vessels. The two fully automated and tilting rotor sails are expected to save *Delphine* between 7% and 10% of its fuel consumption, depending on the route.

"CLdN is the top performer amongst its ro-ro shipping peers in Northwest Europe, producing the lowest CO_2 emissions per tonne of freight carried with its fleet of modern ships," said Gary Walker, CEO of CLdN RoRo. "By investing in technologically advanced ships and terminals, CLdN enables its customers to improve their carbon footprint and support them in making their supply chains more efficient and robust."

CLdN says it will work with the Maritime Technology Division at Ghent University to study the performance of the sails in the coming months.

Norsepower rotor sails can be installed on a range of vessel types and are suitable for both newbuilds and existing vessels. With this latest installation, *Delphine* becomes the seventh ship to feature the technology and third with tilting sails, which are suited for vessels that navigate on height-restricted routes.

"The rotor sails will maximise our fuel and emissions savings on the *MV Delphine* and we will use this project to help determine how the technology could be deployed on the current CLdN fleet and our newbuild vessels. *Delphine's* redeployment to the fleet will help meet the current high levels of customer demand," added Walker.

Earlier installations of Norsepower rotor sails have included the tanker *Timber Wolf* (ex-*Maersk Pelican)*, two passenger vessels, two Ro-Ros, and a newbuild 325,000 dwt Very Large Ore Carrier (VLOC) equipped with a record five tilting Rotor Sails.

Source: gCaptain 230228 —oo00oo--

25 Injured as Research Vessel Tips Over in Dry Dock

View of the research vessel *Petrel* after it toppled over in a dry dock in Leith, near Edinburgh, Scotland, Britain, March 22, 2023. REUTERS/Russell Cheyne

Decorated research vessel formerly owned by Microsoft co-founder and philanthropist, Paul Allen, tips over in dry dock, injuring 25. The vessel was purchased by the U.S. Navy's Naval Sea Systems Command (NAVSEA) in 2022.

LONDON, March 22 (Reuters)Reporting by Farouq Suleiman, writing by Sarah Young; editing by William James)

Twenty-five people were injured when a ship came off its holding and tipped on its side in a dry dock in Leith, Scotland on Wednesday, the Scottish Ambulance Service said, with 15 taken to hospital.

Ten people were treated and discharged at the scene, the emergency service added in a statement.

Pictures posted on Twitter showed a large ship propped up against the wall of a dry dock. A local councillor posting on the social media site said strong winds had caused the Incident.. *c) Copyright Thomson Reuters 2023*

Source: gCaptain 230323 —oo00oo--