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NEWSLETTER



To promote, develop and support in the spirit of cooperation, the common interests of its members in all matters concerning the development and quality of maritime education and training.

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TRAIN, TRAIN, RETRAIN, RETRAIN,







www.globalmet.org

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Editorial

he writing of this editorial was delayed until the end of Singapore Maritime Week, during which the 21st half yearly meeting of the GlobalMET Board of Directors was also held. It was a privilege to be in Singapore for the annual SMW, when many senior people in the global shipping industry gather in this major maritime hub, where the government support for maritime transport and associated activities is outstanding. That MET is a key part of this development is very encouraging.

At the big SMW awards dinner, Roland Tan, Director of GlobalMET Member Singapore Maritime Academy, received the maritime trainer of the year award. That worthy recognition brought to mind the similar award granted last month to Capt Anura Seneviratne, Head, Department for Maritime Training (Ocean) at GlobalMET Member, the Australian Maritime College, at the Annual Sailor Today Awards Ceremony in Mumbai. It is very pleasing to see people striving to ensure quality MET now receiving such recognition.

Also at the dinner, the Singapore Minister for Transport announced reduced port fees and other incentives aimed at boosting competitiveness and better use of the already crowded anchorages. Port dues for container ships will reduce by as much as 83% from July. Under the Maritime Singapore Green Initiative, rebates for ships that burn cleaner fuels while in port will go up from 15 to 25%. Singapore-flagged ships with reduced fuel consumption and sulphur oxide emissions will pay only one-quarter of their initial registration fees. Previously, these fees were halved. GlobalMET Chairman Tim Wilson and I both spoke at the 12th Maritime HRD and Crewing Conference, addressing major training and certification issues, including the implications of the Manila Amendments to STCW. Discussion following the presentations reinforced the theme that a lot more needs to be done to ensure provision of MET that meets industry needs, now and into the foreseeable future and the need for collective action. Considerable concern was expressed about token compliance with minimum standards in many crew supplying states.

While the minutes of the GlobalMET Board meeting will be distributed to GlobalMET Members in the near future, it is a pleasure to take this opportunity to advise that it was a very good meeting, with participants from Australia, Japan, Malaysia, New Zealand, Papua New Guinea, Singapore the USA and the UK providing much constructive input. Late this month Chairman Tim Wilson will lead the GlobalMET delegation at STW 44 and ExecSec Rod Short will participate in the Consultancy Forum to be hosted by the Asian Development Bank in Manila to consider the draft consultant's report for their funded project *Human Resource Development in the Maritime Sector in Asia and the Pacific*, a project initiated by GlobalMET representations to the ADB.

There is a lot happening!

Rod Short Executive Secretary

MET Developments

In response to a request, it has been decided to include a MET Developments section in each newsletter. Members are invited to contribute items about developments in their own institutions or other developments they feel other Members should know about. This first MET Developments section features one item, the forthcoming STW 44 meeting in London at the end of April.

As mentioned in the accompanying editorial, the GlobalMET delegation is to be led by our Chairman Capt Tim Wilson, Director of the New Zealand Maritime School. Item 3 of the STW 44 Agenda 'Validation of model training courses' has 10 papers for consideration, which include the four 7 Series courses reviewed and revised by GlobalMET Members

- Anglo-Eastern Maritime Training Centre,
- Australian Maritime College,
- Malaysian Maritime Academy,
- National Institute for Sea Training in collaboration with the Tokyo University of Marine Science and Technology.

Tim Wilson also did a lot of work prior to the courses being submitted to the IMO Secretariat. Also to be considered by STW 44 is the new Leadership and Teamwork Course, written by an international correspondence group of 12 led by GlobalMET ExecSec Rod Short.

Reviewing and revising large existing courses and drafting a new course is time consuming work, requiring considerable expertise and dedication. All work was voluntary and by MET providers themselves, with all involved willingly giving of their time and expertise. Due credit should be forthcoming



and GlobalMET is very grateful for the admirable efforts of these Members.

Nevertheless, considerable concern has and is expressed about the model course approach and the lack of student centred learning and use of modern educational methodologies for the generation now going to sea, a generation very different from the generation that initiated the model courses. There is of course tremendous value in the model courses, but it does appear to be timely to review the overall approach and consider introducing change that more effectively meets the needs of new seafarers.

We look forward to the MET providers participating in a good debate during STW 44.



Teekay LNG Powered

Teekay LNG Partners has ordered two 173,400 m³ LNG carriers from Daewoo Shipbuilding & Marine Engineering in Korea. The vessels will each have two MAN Diesel & Turbo ME-GI dual-fuel, ultra long two-stroke gas injection engines. These engines received DNV type approval in 2010 and their use as part of an innovative propulsion package is claimed to give significant fuel savings when compared to propulsion commonly used for LNG carriers today.

NV experience from risk assessments of LNG-fuelled ships shows that a gas-fuelled main engine has the same risk level as a dieselfuelled main engine. One reason for the low risk is that the main engine undergoes rigorous type approval and testing regimes as well as being subject to stringent rule and regulatory requirements.

The new electronically controlled, twostroke ME-GI engines from MAN Diesel & Turbo have undergone extensive testing. The engines will automatically switch between burning LNG and fuel oil when power is reduced to 15% load, making port-to-port operation on LNG possible.

"These engines place us at the forefront of technology in the marketplace," says Tony Bingham, Teekay's technical manager for LNG. "We benefit, our charterers benefit and so does the environment through lower SOx, NOx, CO, and particulate emissions."

He continues: "We will install a revolutionary re-liquefaction plant which consumes less than 300kw. This enables us to re-liquefy any excess boil off at speeds below 15 knots. Link this capability together with DSME's patented sealed LNG containment system and we can ensure that no boil off is burnt in the gas combustion unit at any speed. This unique design ensures that the maximum cargo is delivered to the customer at the lowest unit freight cost in the industry."

DNV is providing full classification services for the newbuilding project. "As the class society that has approved most of the gasfuelled vessels built to date, DNV has played a central role in the evolution of gas engine technology," says Nick Roper, DNV's District Manager for the Pacific region.



Teekay's new vessels are scheduled for delivery in 2016 and the company has an option to buy three additional vessels. The delivery time coincides with expected growth in the US LNG export market and a wave of increased demand for LNG carriers. The new vessels will be among the largest LNG carriers able to transit the Panama Canal after its expansion, making them ideal for US LNG exports.

Capt Radhika Menon

Indian Express 18 March



n October 27 last year, Captain Radhika Menon, of the 21,827-tonne oil tanker Suvarna Swarajya, was going through a spot of tension at Nagapattinam in Tamil Nadu. It was raining heavily and there were winds of 60 km per hour. The ship was buffeted from side to side. "The big ship was behaving like a small toy," says Menon. It was a time when it was difficult to keep one's balance. A few of the crew members became sea-sick. All the items inside the cabins were thrown about, and fell to the floor.

The vessel dragged its anchor twice. "It had to be re-anchored," says Menon. For two days they remained in this uncomfortable situation. On October 29, the Meteorological Department declared that the depression near the coast of Sri Lanka had developed into a cyclone called Nilam and was approaching land between Nellore and Nagapattinam. Menon decided to move away. Eventually, she went near Krishnapatnam, 496 km away. "By doing this I was able to avoid the direct impact of the cyclone," she says. Later, they returned to Nagapattinam, collected a shipment of naptha, and sailed to Thirukkadaiyur Port in Tamil Nadu.

Not many people know that Menon has made history. She is the first woman captain of the Indian merchant navy. Appointed a few months ago, she was not surprised. "I knew I would become captain one day," she says, with a smile.

Asked about her responsibilities, Menon says, "I have to plan the navigation routes and manoueuvre the ship in and out of the harbour. I have to tackle all types of emergencies, like a sudden, unexpected storm." She also has to do all the paperwork and monitor all departments and ensure that safety rules and regulations are complied with. Menon also oversees the training of the staff on board and conducts emergency drills. "In short, I am overall in charge of the ship," she says.

Interestingly, apart from Menon, and one cadet, it is an all-male crew of 38. "They know me well, and have no problems of taking orders from me," she says. "Do remember I have been with the Shipping Corporation of India (SCI) for 22 years." She did a oneand-a-half year radio course at the All India Marine College in Kochi before she became a radio officer in SCI, the first woman to do so in India.

But it has not been a smooth journey. "Compared to a male officer, I am scrutinised much more," she says. "I try to avoid making mistakes. If I do make one, it will be talked about, and never forgotten. My attitude is simple: if a hurdle has been placed in front of you, then you have to clear it."

But there are many enjoyable aspects of the job. "I love the harbour approaches, especially those at Visakhapatnam, where there are some nice hills. In my hometown of Kochi, there are the Chinese nets, apart from the island of Mattancherry, with its old houses and beaches. It is so nice when you look at it from the sea."

Menon also loves the weather. "There are beautiful sunrises and sunsets. The best sight is star-filled nights. It is like looking at the night sky inside a planetarium. I enjoy the unpolluted atmosphere."

But she watches the sea carefully. "It has so many different moods," says Menon. "It can be unforgiving if you make a mistake. Carelessness and complacency has led to disasters. The sea must always be treated with respect."

Meanwhile, when asked about balancing a career with home, Menon says, "When my son, Bhavesh, was younger (he is 17 now), I would do short stints," she says. "The passenger ship I worked on operated between Kochi and the Lakshadweep Islands." But now Menon works for one year and then takes a full year off. Her husband, Praveen Venugopal, works for a mobile firm in Kochi.

Her advice to young girls who are planning to join the merchant navy is clear. "She should not expect any special consideration just because she is a girl," says Menon. "She should know her work thoroughly, so that she can command the respect of others," she adds.

Maritime Economics Challenges

Escalating Bunker Fuel Prices and Vessel Operating Costs By

Jai Acharya MSc (Maritime studies); B.E. (Hons) EEE; FIE; CEng Technical Director STET Maritime Pte Ltd Singapore

Abstract

Bunker fuel prices increased in tandem with global oil prices. The price of 380 centiStokes(cSt) in Singapore increased by 40 per cent to reach \$647 per ton in 2011. Higher fuel costs have a disproportionate effect on transportation companies, as fuel is a necessary cost input. Fuel costs are estimated to have made up to 60 per cent of total freight earnings on the benchmark very large crude carrier (VLCC) Western Asia to Far East voyage – taking an average bunker price of \$630 per ton for March 2011. This share was only 36 per cent in June 2010. To put this into perspective, in 2008 the annual capital cost for a new Panamax bulker was \$6 million, and the annual bunker cost \$3.3 million. In 2011, the costs were \$2 million and \$5.5 million, respectively.

Ex-wharf marine fuel prices averaged around \$669.00 a tonne in May 2012,the lowest since last October, versus around \$726.00 a tonne in April 2011, Reuters data showed. Buyers certainly took advantage of the lower ex-wharf prices to make purchases. The decline was in line with the fall in benchmark Brent crude prices, which hovered around \$110.00 a barrel in May, the lowest since December.

After staying stubbornly high for about a year, bunker fuel prices have finally fallen, along with the fall in crude oil prices, providing the beleaguered container shipping sector a much needed relief. The bunker fuel price of 380 cSt remained almost steady around USD 625-626 and for fuel oil of 180 cSt, the price remained around USD 635 in Singapore bunker market during the first Quarter of 2013

Vessel Operating Cost - Current Scenario

In addition to fuel expenses due to increasing bunker costs, low freight rates and the costs associated with piracy attacks, other cost items are also increasing. This has been due to increases in commodity prices, which drove up lube, repair and maintenance costs, as well as to additional insurance cover against piracy. In the liner industry, the overall loss in 2011 was estimated at over \$6 billion.

In a context of increasingly higher costs and weak economic juncture, cost management and control is becoming important. Relevant cost-cutting measures include speed management through slow steaming, bunker adjustment, paper hedges and selection of the most economical routing options. Among these strategies, slow steaming has evolved into a key cost-cutting measure that reduces bunker fuel consumption and helps absorb capacity. Today, slow steaming is implemented across various market segments and in particular container trade, which relied heavily on this strategy during the 2008/2009 crisis. The global containership fleet cut sailing speeds by an average of 13 per cent in 2011 on a number of mainlane trades and has continued to reduce sailing speed from 24-25 knots to 21 knots (slow steaming), 18 knots (extra-slow steaming) and 15 knots (super-slow steaming).

In the tanker trade, slow steaming has been implemented with most voyages occurring at an average of 13 knots (compared to 14 knots), and 10-11 knots when sailing in ballast.

Some argue that slow steaming has its limitations and that it may not be advisable to implement it in all cases. First, slow steaming may be better limited to a few long-haul routes and not used for short-haul ones. Second, there is a need to assess the implications of employing additional ships and container equipment. Furthermore, increased transit time, especially for the dominant leg, may not be acceptable for supply chains, as shown by a study investigating



the merits of slow steaming. This study argued that other factors need to be accounted for, including the auxiliary bunker costs and the sensitivity of demand to transit time. Studies for January 2010 indicated a limited use of slow steaming on the Europe-South American trades (with around 30 per cent of services operating slow steaming) as compared with over 80 per cent of services operating slow steaming on those between Europe and the Far East.

The study concludes that a differentiated strategy by shipping lines of sailing at a different speeds depending on the leg, or of using hubs instead of direct services, maybe recommended. Such differentiated strategy would also take into account the sensitivity of demand to transit time, for example by distinguishing between frozen and dry and fresh products.

While slow steaming is viewed by many as a short-term fix, others consider it to be a long-term trend. In view of current developments in the energy sector, growing demand, constrained and uncertain supply, as well as ongoing geopolitical risks affecting oil producing regions, oil prices and therefore bunker fuel costs will no doubt continue to trend upward.

World energy demand is projected to grow and add some 39 per cent to global consumption by 2030, with almost all the growth being generated in developing regions. Whether adequate levels of energy at affordable prices will be available to match the increased global energy requirements remains uncertain. It is worth noting in this respect that global replacement costs of existing fossil fuel and nuclear power infrastructure are estimated at \$15 trillion to \$20 trillion at least, equivalent to between 25 and 33 per cent of global GDR. Geopolitical risks and tensions, including economic sanctions, civil unrest and conflicts also weigh down on the supply side. Some observers forecast that the price of crude oil will reach extreme levels if current geopolitical risks escalate and if strategic transit points for oil trade are closed.

Implementation of MARPOL Annex VI

Another major development with a bearing on the bunker market relates to the requirement under the IMO International Convention for the Prevention of Pollution from Ships (MARPOL) annex VI, governing air pollution and Emission Control Areas (ECAs) in the European Union and North America, for ships to use low-sulphur fuel. Ships are required between now and 2020 to burn a more expensive but less polluting fuel, namely distillate grade fuel. The price differential with residual fuel is currently estimated at 50 per cent.

While ships are allowed to use technology such as cleaning systems for exhaust gas (scrubbers), the effective widespread use of such scrubbers remains uncertain. These developments raise concerns about their potential economic impact on shipping, especially at a time when fuel costs account for more than two thirds of operational ship expenditure. The price differential between lowsulphur fuel and residual bunker fuel is projected to increase further with growing demand not being matched by increased supply.

Other concerns relate to the potential for inducing an undesirable modal shift. Recent studies supported by the European Community Shipowners' Associations (ECSA) have suggested that applying the 0.1 per cent limit on sulphur fuel could result in a modal shift from water to surface transport which could be detrimental for local

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shipping and the environment. This concern is shared with respect to trade in the Great Lakes of Canada and the United States.

To sum up, rising energy prices and fuel costs remain a great challenge for the shipping industry in view, in particular, of rising demand, supply pressures and increasing environmental regulation. Cost control and fuel consumption management is essential and may involve a range of strategies. These may include speed management through slow steaming, selection of the most economical routing options and technology-based solutions. These strategies will impact on the design of vessels and propulsion systems, as well as on other technology-related strategies and operational measures. While these may apply differently, depending on the vessel and type of operations, overall a combination of technology-based and operational measures have significant potential to help address rising fuel and operational costs. As shipping has over recent years intensified efforts to optimize fuel consumption, in view in particular of the more stringent environmental regulatory framework and given the concerns over climate change, new options and solutions are being increasingly developed and tested.

Conclusion

The trends discussed above are all interconnected and entail both challenges and opportunities for the maritime industry. By altering costs, prices and comparative advantages, these developments and related impacts on shipping and seaborne trade can greatly determine countries' trade performance and competitiveness. Improved understanding of these issues and their impacts, both individually and in combination, is required, with active involvement by all stakeholders, including policy makers, investors, maritime transport planners, ship operators and managers.



Costa Concordia is Piombino-Bound... Eventually



platform and refloated using sponsons. Image: Titan/Micoperi

fficials in Italy on Friday decided that the Costa Concordia will be towed to the Port of Piombino in Tuscany for disassembly after being re-floated this fall.

The Associated Press reports that Piombino was selected due to its proximity to the wreck site, and because it is the most economically and environmentally sound choice.

The Costa Concordia will be refloated in one piece with the help of 30 steel sponsons attached to both sides of the ship and filled with air.

The ship is expected to be moved in September, although the AP report says that ongoing construction at the port could delay the removal until sometime in early 2014.

The latest update from the project's website said that the first sea bottom platforms used to secure the ship upright were installed in February. The salvage is being carried out by the Italian-American Titan-Micoperi consortium.

Accidents at Sea

have been reading a report in which among the causes of accidents, 29% is due to error of judgment. Yes, that may be true and the question arises, why do you make a solo judgment when you have other officers and crew to consult and cement your judgment? In cricket matches, when the umpire is not sure, he consults the third umpire and in the same way you can consult your available shipmates. Consulting others does not mean that you are not smart or no good.

The other cause mentioned is lack of look out with 25% share. This is true. I see every day, youngsters on the bridge glued to their mobiles. Mobile phones on bridge, during duty, is the biggest hazard today and officers must be punished for this as a rule. You must keep an additional lookout during high traffic density and poor visibility. Don't try to earn cheap popularity by not calling for additional lookout. Don't worry about hours of rest and sleep. One can sleep later.

The third cause mentioned is not reducing speed. When you are not sure and when there are several vessels around or when the visibility is poor, you must reduce speed at least temporarily and keep engines on standby. On my last ship, I rang up master on bridge to ask for RFA time (he had asked RPM to be increased slowly to full) but he replied that, Chief, we are still in TSS and so better to keep standby for half hour more and we readily agreed and complied. Some more time in engine room is safer than rushing up to cabin.

You are maneuvering with Main Engine and steering motors are also running and these are machinery and you must take into account that one or more of these can suddenly fail and be prepared for necessary action.

A good watchkeeper is one who keeps

asking himself, if this happens what I will do and how. Do I have a standby person to assist me in such an eventuality? One must be mentally ready to face adverse situations efficiently.

Alcoholism has reduced a lot in recent years on board but there are officers keeping watch in night indulging in this bad practice because they think that the Master and Chief Engineer are sleeping so they can do it. Another bad habit is watching movies on ECR computer or listening to music during watch by sitting at ECR computer which is away from control console. You must not think that there is an alarm for every thing e.g. your engine may be getting overloaded with only a red light coming on and no audible warning or load reducing and you not noticing it because you are sitting on ECR computer and not in front of Engine control console. Many times engineer and motorman both watching movie or doing something else on ECR computer. Please avoid this to avoid losses.

Chief Engineer Mahendra Singh

NP 247(2)

P 247(2) is one of the two publications issued by annually by the Admiralty (UKHO). The second part of Admiralty Annual Summary of Notices to Mariners – NP 247(2) - contains updates on sailing directions and miscellaneous nautical publications.

Similar to Part 1, this publication also contains corrections up to the last week of the previous year. It also contains text format updates of all the publications which are published in sections of Weekly Notices to Mariners. As the Admiralty Sailing Directions are continuously kept updated through new editions and corrections, the first section of NP 247(2) contains lists of the latest editions of Admiralty Sailing Directions applicable throughout the globe. The second edition of the publication refers to the updates in force which are applicable only to Admiralty Sailing Directions. These updates are until the last week of the previous year.

Acting as a complete database for the Admiralty sailing directions this publication is very useful in two ways:

 By providing the latest and applicable information on editions of sailing directions in use for all the areas covered by them, the publication forms a very essential part of voyage planning. Sailing directions contain vital information with respect to navigational dangers and other data such as weather, tides, anchorages, approaches etc. Thus the latest editions and information play a vital role in a ship's passage planning as this data are continuously updated and changing. A minor neglect in this data can lead to an error in passage planning and cause danger to the ship.

 They provide a database for the corrections applicable to various sailing directions, making it less time consuming for mariners to have access to latest amendments without much efforts or referring to week by week editions of Weekly notices to Mariners.

Both the parts of annual summary NP 247(1) and NP 247(2) are of prime importance in passage planning of ships as they are efficient tools in accessing the comprehensive and updated data, which contain full information which mariners require in order to check for the previous corrections or amendments which are either in force or already cancelled.

Importance Notes: An alternate method used by most of ship's navigating officers in passage planning involves referring to the soft copy of database (for e.g. Digitrace) of chart and publications corrections on board or by referring to the online chart correction software popularly known as Chart co. These services provide information similar to Annual Summary of Notices to Mariners. However, the Annual Summary is convenient while verifying the corrections together or individually.

Real life Incident: In Oct. 2012 while planning a passage from Malaysia to Indonesia, transiting Singapore straits, the temporary notices for navigation related to presence of submarine cable laying ships were promulgated. The



Admiralty Annual Summary of Notices to Mariners Part 2 Updates to Sailing Directions and Miscellaneous Nutrical Publications

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notices were in force till the End of Nov. 2012 and were to be cancelled from 1st Jan 2013.

The notices required vessels to pass at least 8 miles from cable laying vessels and also suggested some vessels to take an alternative route which increased the distance of the passage from 90 miles to 150 miles. In Jan. 2013, a navigating officer while planning the same passage was not aware about the date from which this notice ceased to be in force and planned the passage considering the notice that were in force. The ship thus followed a long passage and the vessel had to steam extra 60 miles consuming more time and resources. Referring to Annual summary of notice to mariners for this passage could have saved extra efforts, fuel and time of the owners and ship's staff.

Collisions in Singapore Waters



A fter a spate of navigational incidents in the first half of March with two lives lost, the Maritime and Port Authority of Singapore (MPA) has issued a reminder to mariners aimed at raising awareness on safety procedures.

Pointing out that Singapore is one of the busiest ports in the world, used daily by all types of vessels including tankers, bulk carriers, container ships, ferries, barges under tow, and small craft, the MPA stressed that safety in the port is of utmost importance and called on Masters and watchkeeping officers of all vessels to fully comply with the International Regulations for Preventing Collisions at Sea, 1972 (COLREGS) at all times to ensure safety of navigation.

Furthermore, MPA called upon all Masters and watchkeeping officers of vessels to keep proper lookouts and to maintain safe speeds when navigating. They are also reminded to conduct Master/pilot exchange of information and passage plans for the safe conduct of vessel movements.

In addition, MPA has asked all ship owners, managers and agents to ensure that their Masters and officers are aware of this guidance.

The incidents that lead up to the issuance of this guidance took place on 2, 9 and 13 March respectively.

On 2 March, the Vietnamese-registered cargo vessel MV Thuan My sustained damage to one of its hatches in a collision with the Marshall Islands-registered bulk carrier MV Beks Halil about 3.4 kilometres South of Sisters Islands. Fortunately there were no injuries or pollution as a result. A video of the collision attracted a lot of attention. It can be viewed from this link: http://youtu. be/YhceV8WZxIU

The MV *Thuan My* was shifted to the Raffles Reserved Anchorage for repairs, whilst the MV *Beks Halil* had no significant damage and was able to continue its voyage.

On 9 March 2013 the MPA received a report that an Indonesianregistered coaster craft, *Budi Jasa 18*, had sunk in the West Keppel Fairway. Five crew members on board the craft has been rescued and 1 person was reported missing. *Budi Jasa 18* sank as a result of a collision with *Sea Hawk*, a ferry that was proceeding from Pasir Panjang Ferry Terminal (PPFT) to Pulau Bukom. At the time of the incident, *Sea Hawk*was carrying 200 passengers. Eight passengers suffered injuries.

The third and latest incident took place on 13 March, when the MPA received a report of a collision between an Antigua and Barbuda-registered container ship *Bosun* and a harbour craft SC3566E in Sinki Fairway about 7 km southwest of Pasir Panjang Terminal. There were 2 persons on board the harbour craft, which sank following the collision. A passing vessel rendered immediate assistance. Of the 2 persons, 1 was pronounced dead while the other was sent to Singapore National University Hospital for medical attention.

MPA is investigating the incidents and will review safety procedures in the port.

PORT MARINE CIRCULAR NO. 03 OF 2013 issued on 14 Mar 2013 Bimco.org

المحمد المحمد

Dockwise Vanguard Completes its First Float-On



The Dockwise Vanguard, the world's largest semisubmersible Heavy Transport Vessel (HTV) to date, safely completed its first ever float-on operation earlier this week (mid-February).



he vessel, loaded with the World's largest semisubmersible offshore platform hull, the Jack/St. Malo, is now on her maiden voyage carrying the near 56,000 metric ton hull on her deck.

The Dockwise Vanguard successfully executed the float-on exercise of the Jack/St. Malo platform hull at the Silli-Do deep hole near the Samsung Heavy Industries yard in Geoje, South Korea. "The float-on operation was precisely and safely executed as planned. It took no more than 4 hours before the cargo stood firm on her cribbing," states Ronald Goetheer, Project Manager at Dockwise. After almost two days of sea fastening, the Dockwise Vanguard departed at sunrise on the 12th of February, and will navigate around Cape of Good Hope heading towards the Kiewit yard in Ingleside, Texas, USA, where it is expected to arrive mid-April.

Dockwise Vanguard

The Dockwise Vanguard is an innovative semisubmersible HTV that is redefining the limits of exceptional heavy marine transport. The vessel has been designed to enable operators and contractors consider opportunities for mega offshore units which were until now considered unthinkable. With the loading capacity of up to 110,000 tons, the vessel is designed to serve the top end market focusing on next generation offshore.

Companies in the Oil & Gas industry can now specify much larger and heavier offshore structures, and these can be integrated at a single fabrication site. These mega structures can then be transported onboard the vessel to remote offshore locations, even in harsh climates where no commissioning facilities are available. This feature can help reduce costs and optimize the overall project. In essence, the new vessel will play an important role in the field development philosophy of Oil companies, since it will be capable of transporting fully integrated mega offshore units.

The vessel's design is also expected to help operators and developers create value. With its capabilities, timely and risky phases of offshore projects can be managed prior to hookup and commissioning. Interface optimization, higher degree of risk mitigation, lower insurance premiums, improved schedule flexibility, and reduced time-to-production – as well as reduced

offshore man-hours – are a few examples of opportunities. In addition, the vessel's advanced technical capabilities enable it to offer a completely new service: offshore dry-docking.

Increasingly, FPSOs are being located in remote areas that lack support infrastructure. In this circumstance, an offshore dry-docking service can be specially valuable. The Dockwise Vanguard's FPSO dry-docking capacity offers inspection, maintenance, and repair opportunities (amongst others) at different conditional modes. The FPSO could remain connected to its mooring and turret system while keeping the riser systems intact, with the possibility of continuing limited production. In this scenario, the FPSO will still be able to freely weathervane around the turret mooring, with controlled heading made possible by the vessel's propulsion system. The vessels capabilities completely avoid or significantly reduce downtime.

Innovative Design

The vessel is specifically designed to exceed the Oil & Gas industry's expectations. *"From the drawing board, we decided to engineer a truly exceptional vessel unlike others in the market,"* states Michel Seij, Manager Engineering at Dockwise.

The Dockwise Vanguard is engineered to surpass current heavy marine transport limitations. The vessel's deck covers a surface of $275 \text{ m} \times 70 \text{ m}$ (902 ft x 230 ft) and is equipped with movable casings. In addition, the accommodation block and navigation bridge are located on the extreme starboard side. The vessel has no bow, and this, along with other design features, gives the vessel a unique appearance.

In addition, the vessel has a dedicated design for ultra-heavy units weighing up to 110,000 metric tons. Optimized deck strength and extreme wide-load capabilities are at the heart of the design philosophy; as are the vessel's stability characteristics. It is equipped with a 27 MW redundant propulsion system consisting of two fixed propellers at the aft and two retractable azimuth thrusters at the bow. These can reach a maximum transit speed of 14 knots, which translates to average service speeds of 11-13 knots with cargo. In addition, the vessel allows for 16 m (53 ft) water above deck, accommodating cargoes with a higher draft.

European Shipowners Dumped 365 Toxic Ships on South Asian Beaches Last Year

Record-breaking number of 365 toxic laden ships were sent for breaking by European shipowners to the beaches of South Asia in 2012, according to a list released today by the NGO Shipbreaking Platform, a global coalition of environmental, human rights and labour rights organisations working for safe and sustainable ship recycling. This number represents a 75% increase from 2011, when 210 EU-owned ships were sent for breaking in India, Bangladesh and Pakistan.

"Despite the possibility of proper disposal in Europe or other developed countries, the vast majority of European shipping companies continue to profit by having their ships broken cheaply and dangerously on the beaches of South Asia. The EU must adopt mechanisms that will prevent European shipowners from exporting toxic ships for breaking in developing countries and instead recycle them according to the health, safety and environmental laws and standards of their own countries," says Patrizia Heidegger, Executive Director of the NGO Shipbreaking Platform.

Of the top 10 European "global dumpers" in 2012, Greek shipowners were number one, dumping 167 ships on South Asian beaches, or nearly half of all ships sent by European shipowners in 2012. German shipowners represented the second largest group of toxic ship dumpers (48 ships) followed by shipowners from the UK (30 ships), Norway (23 ships), Cyprus (13 ships), Bulgaria (8 ships), Denmark (6 ships) and the Netherlands (5 ships). Shipowners from all countries, except the Netherlands and Norway, increased the number of end-of-life ships exported to Asia, with Italian shipowners sending three times as many ships in 2012 compared to the year before and MSC, the main Swiss containership and cruise ships company[2], beaching 23 ships in 2012, compared to only 5 in 2011. The rest was sent by shipowners

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ships), Sweden (3 ships), February 11, 2013 Marine Insight Weekly Newsletter

Lithuania (2 ships), Belgium (2 ships), Romania (2 ships), Latvia (1 ship) and Poland (1 ship).

The Platform's 2012 list shows that most of the end-of-life ships sent by European shipowners did not fly an EU flag. In fact, 240 of them used what is commonly referred to as the "flags of convenience" phenomenon, using flags such as Panama, Liberia, the Bahamas or St Kitts-and-Nevis, which makes it more difficult for the EU to prevent their dismantling in substandard facilities. The NGO Shipbreaking Platform is currently working with the European Parliament to introduce a financial mechanism that would help shipowners internalize the costs of proper disposal of the hazardous materials found in end-of-life vessels. The Platform wants the mechanism to apply to all ships calling at European ports, instead of only addressing EU-flagged vessels. The financial mechanism could be a fund financed by fees paid by shipowners; an insurance; or a savings account guaranteeing that funds are put aside for safe and environmentally sound ship recycling. The EU Commission failed to introduce such a financial mechanism in its proposal for a European Regulation on ship recycling published in March 2012. Under the Cypriot Presidency, which ended in December, the EU Council failed to strengthen the Commission proposal. Coincidentally, in 2012, Cypriot shipowners sent 13 ships to the South Asian beaches. Also Greece and Germany, the two biggest European ships dumpers, do not show the political will to stop the export of end-of-life vessels.

China is another major destination of concern for end-of-life ships sold by EU-based shipowners. Both China and the EU have ratified the Basel Ban Amendment that prohibits any transboundary movement of hazardous waste exported from OECD to non-OECD countries. While today's list focuses on endof-life ships sent to beaches in South Asia, and even though the Shipbreaking Platform welcomes the fact that China has outlawed beaching and uses a higher level of mechanization, it notes with continued concern, the absence of independent trade unions in China, the lack of proper downstream management of toxic residues such as PCBs as well as the fact that such

exports are likely to violate the Basel Ban Amendment.

Underwater Shapes



wenty years ago, it seemed that the underwater shape of any ships was a more or less settled science. Bulbous bows, (the benefits of which had been first identified by Italian naval architects in the 19th century), were widely fitted, with the most "extreme" bulbs fitted to the fastest ships.

But hydrodynamics as a science has continued to develop and recent years have seen all manner of astonishing ship shapes entering service. The Ramform, the X-bow and the Axe bow, along with other dramatic ship shapes, all arrived amid claims of the superior sea-keeping qualities and operational economies they produced.

The soaring price of fuel and tough economic times have produced another wave of hydrodynamic innovation, with naval architects looking hard at all aspects of the underwater shape and its relationship to the sea. The flow of water around the stern and the efficiency of propellers, the effect of trim on performance and the operation of rudders have all been studied afresh, while the fitting of Mewis ducts and various other appendages to beef up the bite of a propeller have been appearing in newbuilds. A regular scrub to freshen up the surface of a propeller, between dry-dockings has proved and demonstrable dividends.

But what else can be done to make existing ships more economical? Obviously slowing them down is the most natural fuel-saving measure, but that brings its own problems, as a hullform that was designed for optimum efficiency at a speed of 25 knots is unlikely to work as well if the service speed is reduced by 5 or more knots. So it is interesting to note that Maersk has started to remove the bulbous bows from a number of its container ships now operating a slowed service speed regime.

Maersk has worked out that these appendages can weigh up to 140 tons and while they were doing their job perfectly at the designed high service speed, they do the opposite to what they were intended with the ship slowed down, with resistance actually increased. As might be expected with a company that looks at these matters with an analytical eye, the strategy will not work for every ship, but if a business case can be made and the economics work, then a "nose job" will follow. If the surgery is done on the right ships, then the fuel savings from the reshaped bow can amount to some 2%. Not carrying around up to 140 tons will itself produce some savings. Ten ships have been so far scheduled for bulb removal and it will be interesting to see if any of the other major operators follow the Maersk example.

Meanwhile, the science of hydrodynamics continues the search to optimise the underwater body and produce more fuel and energy savings. Computational fluid dynamics is a new weapon in the designer's armoury, which it is hoped will produce further breakthroughs in the lowering of resistance and higher propulsive efficiency. We are given hints that exciting developments in the world of underwater coatings are soon to be revealed. Innovation flourishes when times are hard!

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Global Maritime Education & Training Association GlobalMET Limited

Australian Company Number 103 233 754

www.globalmet.org

Chair: New Zealand Maritime School 2 Commerce Street Private Bag 92068 Auckland New Zealand Executive Secretary: Rod Short P O Box 307 Waikanae Kapiti Coast 5250 New Zealand rod.short3@gmail.com

Secretariat

P O Box 307 Waikanae Kapiti Coast 5250 New Zealand Tel 64 4 905 6198 Fax 64 4 905 6190 rod.short3@gmail.com 1042 Sector A Pocket B & C Vasant Kunj New Delhi India 110070 Tel 91 11 26124221 Fax 91 11 26894188 secretariat@globalmet.org