January/February 2013 Vol 58 No 1



Hamburg hamstrung Judges halt Elbe deepening

Manage the weather Reduce your premiums

Pirates alley West Africa's vulnerable ports

PORTS HARBORS

Official Journal of the International Association of Ports and Harbors

Young and keen Ports inspire the next generation

The Global Ports' Forum for Industry Collaboration and Excellence www.iaphworldports.org

Buying and selling used heavy duty trucks worldwide



Fuldastra8e 32 + 26135 Oldenburg + Tel.: +49 (0) 4 41/2 06 99 99 + Fax: +49 (0) 4 41/2 06 99 98 + info@hinrichs-stapler.de

container handling and port equipment





D3163 Baoli CPCD Year of manufacture: 2008 Price: 39,000 EUR

D3192

Fantuzzi FDC160

Year of manufacture: 2000

Price: 55.000 EUR

D3245

Kalmar DRS4527-S5

Year of manufacture: 2006

Price: 199.000 EUR

D3234

Kalmar DC845RS5

Year of manufacture: 1996

Price: 69,000 EUR

DK006

Linde C4535TL4

Price: 120,000 EUR

Year of manufacture: 2000 Year of manufacture: 1997



D3247

Kalmar DRF450-70S5Xs

Year of manufacture: 2007

Price: 220.000 EUR

D3246 CVS-Ferrari F198H Price: 79,000 EUR



D3131 Kalmar DRF450-70C5XS Year of manufacture: 2005 Price: 210.000 EUR



D3249 Kalmar DRD420-60-S5 Price: 120.000 EUR



Kalmar DRF450-65A5X Year of manufacture: 2009 Price: 270 000 EUB



Kalmar DRD100-52S6

D3171

Price: 115.000 EUR



D3259 Liebherr LRS645 Year of manufacture: 2005 Price: 165,000 EUR



Price: 160,000 EUR

DK007 Svetruck ECS6H Year of manufacture: 1995 Year of manufacture: 2006 Price: 75,000 EUR

D3215 CVS-Ferrari F258.6 Price: 78,000 EUR

D3237 Fantuzzi CS45KM Year of manufacture: 2003 Year of manufacture: 2003 Year of manufacture: 2001 Price: 139,000 EUR

D3243

Kalmar DRF450-65S5X

Year of manufacture: 2005

Price: 190.000 EUR

D3232

Kalmar DCE160-12

D2847 Fantuzzi FDC350RR Price: 160,000 EUR

D3244 Kalmar DRF450-65S5X Year of manufacture: 2005 Price: 190.000 EUR

Year of manufacture: 2005

D3248 Kalmar DRF420-60-S5 Year of manufacture: 2005 Price: 180.000 EUR

D3219 Kalmar DCE90-45E7 Year of manufacture: 2006 Price: 95,000 EUR

D3229

PPM FCH45

Price: 95,000 EUR

Kalmar DCD70-35E4 Year of manufacture: 1997 Price: 52,000 EUR

D3177

D3056 SMV SC4535TA5 Year of manufacture: 2002 Year of manufacture: 2007 Price: 165,000 EUR

E4644 Kalmar ECD90-6L Year of manufacture: 2001 Price: 44,000 EUR

D3174 Svetruck 2812045

CONTROL OF

Keep them keen: creating positive vibes among young people about port activities

Photo: Genoa Port Centre

January/February 2013 ISSUE 01 VOL 58

REGULARS

Comment: SG Naruse urges ports and governments to		
think big when they plan infrastructure projects	3	
News: Fallout of Hurricane 'Sandy'; Southampton goes fo	r	
rail; Kizad's client list tops 40; Israel Ports appeals for help	4	
Open Forum: A tanker owners organisation claims the	2	
long-term damage from oil spills may be exaggerated	10	
Cover Story: How to achieve a successful port/city inte	er-	
face; Genoa wins ESPO award for its youth programmes; Vale	ncia	
gains a competitive edge by promoting its quality culture	12	
Maritime Update: Ports tool up for LNG; ESI works with		
Green Award; Verhoeven leaves ESPO for pastures new	30	
IAPH Info: Looking ahead to LA in May; VP Garcia Milá o	on	
his ESPO chairmanship; regional meeting in Abu Dhabi	36	
Last Word: CEO Bisey Uirab describes the Namibian Por	ts	
Authority's plans for sustainable growth at Walvis Bay	40	

FEATURES

A weather eye: Insurance underwriters need reassur	ing
that ports have fully assessed the risks of extreme weather	18
Weighing the risks: ATT Club insurance specialist	
advises operators to plan for changes in box weighing regs	20
The enemy below: We look at steps ports should ta	ake
to protect their assets against the underwater terrorist threa	t 22
Measuring mud: A major UK port talks about its	
navigational complexities and the hydrographic tools it uses	24
New pirate problem: A security expert offers his	
solution to the threat facing West Africa's vulnerable ports	26
Knowing the ROPES: A Dutch research project loo	ks at
the effects of the wash from ships moving through ports	28

Be part of the global ports' community with an IAPH membership

The International Association of Ports and Harbors (IAPH) is a
global alliance representing over 190 ports in 85 countries.
Together, IAPH member ports handle over 60% of the world's sea-borne trade and nearly 80% of the world's container traffic. It is a non-profit-making and non-governmental organisation headquartered in Tokyo, Japan.

IAPH provides a platform to develop and foster good relations and co-operation among the world's ports and harbors through forums where opinions and experiences can be exchanged. It promotes the role ports play in waterborne transportation and in today's global economy.

Benefits of membership include:

- Free copies of IAPH publications including Ports & Harbors, Membership Directory, newsletter and full access to IAPH website
- A voice for your port via IAPH representatives within organisations such as IMO, UNC TAD and WCO
- A chance to influence decisions at IAPH's technical committee meetings
- Networking opportunities at IAPH's meetings and conferences, plus reduced registration fees for these events

To apply for membership please email info@iaphworldports.org or visit www.iaphworldports.org

'The Global Ports' Forum for Industry Collaboration and Excellence'

PORTS HARBORS

Official Journal of the International Association of Ports and Harbors

PORTS & HARBORS

Published bi-monthly by the International Association of Ports and Harbors (IAPH), edited and produced by IHS Fairplay.

PUBLISHER

Susumu Naruse Secretary General, IAPH info@iaphworldports.org

EDITOR Penny Thomas

penny.thomas@ihs.com

SENIOR REPORTER Jem Newton jem.newton@ihs.com

CHIEF SUB-EDITOR Jonathan Maynard

HEAD OF SALES

adam.foster@ihs.com

DESIGN Roberto Filistad, Hannah Kidd,

PRODUCTION Sarah Treacy, Kriss Holliday and Martyn Buchanan

IMAGE SERVICES MANAGER Jo Agius

EDITOR-IN-CHIEF Tony Slinn

tony.slinn@ihs.com

ASSOCIATE EDITOR Aya Fujinami IAPH

ph@iaphworldports.org

EDITORIAL & PRODUCTION IHS Fairplay

Sentinel House, 163 Brighton Road, Coulsdon, Surrey CR5 2YH, UK Tel +44 (0)203 253 2100 Web: www.ihsfairolav.com

SUBSCRIPTIONS

International Association of Ports and Harbors Price Japanese ¥12,000 (US\$120 / UK£80 / €90) or per issue ¥2,000, postage included. Visa and MasterCard accepted or for Bank Transfer. You do not have to be an IAPH member to subscribe contact the IAPH at: 7th Floor, South Tower New Pier Takeshiba 1-16-1 Kaigan, Minato-ku Tokyo 105-0022, Japan Tel: +81-3-5403-2770 Fax: +81-3-5403-7651 Email: ph@iaphworldports.org Web: www.iaphworldports.org

Printed by Warners Midlands plc, The Maltings, Manor Lane, Bourne, Lincolnshire PE10 9PH ISSN 0554-7555

COPYRIGHT

© 2013 IHS. All rights reserved. No part of this publication may be reproduced or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, or be stored in any retrieval system of any nature, without prior written permission of IHS Global Limited. Applications for written permission should be directed to penny.thomas@ins.com. Any views or opinions expressed do

of necessarily represent the views or opinions of the International Association of Ports and Harbors (IAPH), IHS Global Limited or their affiliates.

DISCLAIMER OF LIABILITY

Whilst every effort has been made to ensure the quality and accuracy of the information contained in this publication at the time of going to press, IAPH, IHS Global Limited, their affiliates, officers, employees and agents assume no responsibility as to the accuracy or completeness of and, to the extent permitted by law, shall not be liable for any errors or omissions or any loss, damage or expense incurred by reliance on information or any statement contained in this publication.

ADVERTISEMENTS

are solely responsible for the content of the advertising material which they submit to us and for ensuring that the material complies with applicable laws, IAPH, IHS Global Limited and their affiliates are not responsible for any error, omission or inaccuracy in any advertisement and will not be liable for any damages arising from any use of products or services or any actions or omissions taken in reliance on information or any statement contained in advertising material. Inclusion of any advertisement is not intended to endorse any views expressed, nor products or services offered, nor the organisations sponsoring the advertisement.

THIRD-PARTY DETAILS AND WEBSITES

Any third-party details and websites are given for information and reference purposes only and IAPH, IHS Global Limited and their affiliates do not control, approve or endorse these third parties or third-party websites. Further, IAPH, IHS Global Limited and their affiliates do not control or guarantee the accuracy, relevance, availability, timeliness or completeness of the information contained on any third-party website. Inclusion of any third-party website. Inclusion of any third-party details or websites is not intended to reflect their importance, nor is it intended to endorse any views expressed, products or services offered, nor the companies or organisations in question. You access any third party websites solely at your own risk.

LA here we come

Inspired by a visit to Myanmar, SG Naruse urges nations to invest in infrastructure and looks forward to the IAPH conference

Susumu Naruse Secretary General – The International Association of Ports and Harbors

> Happy New Year from Tokyo! I hope you welcomed in 2013 with great joy. The year 2012 did not bring much good news as we witnessed low or negative economic growth and high unemployment rates in some countries, unstable currency exchange rates, and low growth of global port throughput. I hope we will see this changing in the New Year of 2013.

Three of the world's largest economies changed their administration regimes last year. In the US, the Obama administration entered its second term, China changed its governmental regime and Japan's general election resulted in a different ruling party. If these changes are utilised to their full potential we will experience new economic and social schemes across the globe in 2013.

At the time of writing, I am in Dawei, Myanmar, where a huge deep-sea port is planned. Dawei Port will be located in

I am sure it will be a memorable conference

southern Myanmar, close to the Thai border. It is expected to serve as an industrial base to Myanmar and a logistics base for Bangkok. It also aims to serve as a gateway for ASEAN countries by saving time and transportation costs both between these countries and those ast and Europe The planned facility

in the subcontinent, Middle East and Europe. The planned facility comprises several 20m deep bulk berths and break bulk berths, and a container terminal with eight berths. The land area includes an industrial zone of more than 20,000km², which will accommodate a steel mill, chemical complex and light industries. The project was initiated by a private Thai company on a concession basis, but now it is seeking support from public funds from Myanmar and Thailand. I sincerely hope that other large-scale projects like this can be initiated elsewhere.

This year is an IAPH World Ports Conference year. It will take place in Los Angeles in May and a number of eminent speakers have been lined up and various social programmes are planned. I am sure it will be a memorable conference: the board will elect and endorse a new president and regional vice-presidents; and a new representative of the IAPH European office will take up his position. I sincerely hope you will join us to see IAPH enter a new era. Lastly, I wish you a prosperous and happy year for 2013. PH

Port updates

LNG FIRST FOR ANTWERP

A barge powered by LNG was bunkered in the port of Antwerp from a truck in early December, the first time for the Belgian port. The LNG-powered barge *Argonon* is operated by Deen Shipping. With the introduction of maximum levels for sulphur content in bunker fuel and stricter standards for emissions by seagoing ships and barges, the use of LNG as an alternative to gasoil has been under consideration by Antwerp Port Authority for some time.

TUNISIA CHOOSES MGI

MGI has been chosen by computer engineering company Tunisie TradeNet (TTN), majority-owned by the Tunisian government, to manage all the EDI messages associated with its import control system operations, via MGI's M-customs service. In January 2011, Europe's management system for goods import security declarations – the ICS (Import Control System) – was implemented. Tunisian exporters must now use the system to declare all goods exported to EU member states.

LA MODERNISES

The Los Angeles Harbor Commission certified the final Environmental Impact Report on 18 October for the proposed redevelopment of City Dock No 1 and approved the framework for a marine research centre at the Port of Los Angeles city's waterfront. The development project calls for a 28-acre (0.1km²) campus on the port's oldest municipal pier. The commission has also approved construction projects worth \$127M to modernise the container terminal operated by TraPac.

LIVERPOOL INVESTMENT

Peel Ports in the UK said on 15 December that it has completed a £1. 6Bn (\$2.58Bn) refinancing deal to pay for its growth plans. The funding has been raised from banks and private investors, including £150M from the European Investment Bank, the group said in a statement. Its plans for this year include a £300M (\$485M) investment in deepwater river container terminal, Liverpool2.

Hurricane Sandy approaches the East Coast of the United States in late October

Only a week after being knocked out by one of the biggest storms to hit the US East Coast in decades, container terminals within the Port of New York and New Jersey re-opened on 6 November. Another week went by before port officials revealed that Hurricane 'Sandy', which killed an estimated 120 people (as of mid-November), was also responsible for a costly non-human casualty: approximately 16,000 new, freshly imported cars destroyed after a 4.3m (14ft) surge of seawater swept through the port area. At an estimated \$30,000 per vehicle, that translates to roughly \$480M.

"Once the undercarriage gets soaked, the electrical system is affected and the car is totalled," Port Authority of New York and New Jersey (PANYNJ) spokesman Steve Coleman told *P&H*. "I live in a nearby town where almost every single car left on the street was destroyed," he added.

In late November, the port authority was still assessing other damage caused by the 29 October storm, which forced other East Coast ports to shut down operations briefly until the storm had safely passed by.

With New York area box terminals shut down, container imports of finished goods such as furniture, iPads and flat-screen TVs – as well as automobiles – faced a logistical nightmare. Land-based supply chains connect the New York terminals to approximately 20% of the US population, but the flooding and high winds shut down much of the regional transport infrastructure.

Survey ship *Thomas Jefferson*, owned by the National Oceanic and Atmospheric Administration, conducted a hydrographic survey of the Hudson River to search for sunken containers, debris, and shoaling using high-tech sonar equipment. The vessel worked for five days covering approximately 20nm² of shipping lanes, channels, and terminals to search for dangers to navigation.

Meanwhile, to mitigate supply chain disruptions, terminal operators at the PANYNJ, the US's third largest container port, saw their cargo diverted to rival East Coast ports. Most of those diversions ended up at the Port of Virginia, which estimated that it handled between 5,800 and 6,500 additional import containers and 3,500 automobiles that had been bound for New York. The added box traffic caused a heavy backlog that took the port more than a week to clear out.

Gasoline outages caused by regional supply chain disruptions and a lack of electricity to pump the fuel at retail gas stations prompted the Obama administration to temporarily waive the Jones Act on 2 November. The Jones Act prohibits foreign-flagged vessels from delivering cargo between US ports. The waiver, which lasted through13 November, allowed foreign-flagged oil tankers operating in the Gulf of Mexico to enter the Port of New York, where anchorages for lightering were set up so that fuel could be transferred from tankers to barges.

Shortly after the storm, IHS senior US economist Gregory Draco estimated potential infrastructure damages in the northeastern United States at around \$20 to \$30Bn. He estimated total economic losses, including disruptions to business activity, could reach \$30 to \$50Bn.

Flooding has caused billions of dollars in damages to US properties

Southampton rail first choice

The main DP World container terminal at the Port of Southampton has seen a 6% increase in containers carried by rail as a result of recent gauge enhancements. The modal shift from road to greener rail is expected to accelerate in the next few years as the United Kingdom re-doubles its efforts to hit EU and global emissions targets by 2020.

The improved link from Southampton to the United Kingdom's mainline rail network. one of the EU's priority rail cargo routes, has especially benefitted the transport of high-cube containers favoured by deep-sea carriers. These containers are 1ft taller and sometimes 5ft longer than teu containers and previously needed special train wagons to access Southampton. Since the line upgrade between Southampton and UK's West Coast Main Line was completed in spring 2011, the overall proportion of containers travelling by rail has increased from 30% to 36%.

"Previously, we were unable to put high-cube containers on standard box wagons and had to use low-platform wagons, which meant a lower density of containers per train," Aart Hille Ris Lambers, the Southampton terminal's head of commercial, told *P&H*. "High-cube containers offer shippers more options for onward transport. In 2005, we carried only 27% of our high-cube containers by rail, but this has increased to 44% this year [2012]."

Until a year ago shippers were reluctant to move high-cube containers by rail to, for example, Glasgow, which is one of the port's main import destinations, because it was not economically viable to return the low-platform wagons empty to Southampton.

These improvements to Southampton's rail link will be further enhanced by next May when an upgrade to the so-called 'diversionary route' west of the current line is due for completion. "It will allow us to guarantee a rail

The new gantry cranes at Freightliner's marine terminal

service between Southampton and the Midlands, whereas previously no service was available on days when there were engineering works or other disruptions," Lambers explained.

"We think rail to and from Southampton will continue to grow because the use of highcube boxes will grow and because rail is a greener alternative that the UK government promotes. So when they have a choice, shippers will opt for rail," said Lambers.

Southampton believes it has the best cargo rail service of any UK port, a boast borne out by its having been awarded the Rail Freight Group Customer Care Award in September by the rail freight industry. The judges said the DP World terminal offered the most reliable port rail feed service of its kind in the United Kingdom, with a near 100% success rate for delivering container boxes to rail.

"Hitting slots is important because if you have a truck waiting an hour it's not the end of the world, but if a container misses its slot on the train you have to wait until the next day to get the same train and that may already be fully booked, so you can't guarantee when that box is going to leave," Lambers pointed out.

The efficient service has been further improved by the installation of two rail head gantry cranes by rail operator Freightliner at its Southampton Maritime Terminal, adjacent to DP World. Freightliner said the investment showed its commitment to the intermodal container market and willingness to invest for the long term.

Port updates

LNG UP IN SINGAPORE

Singapore will add a fourth storage tank at its LNG terminal on Jurong Island, the city-state's second minister for trade and industry S Iswaran announced on 24 October. Speaking at the Gas Asia summit, Iswaran cited rising LNG demand as the reason. The tank is expected to be in operation by 2017 and will boost the capacity of the LNG terminal to about 9M tonnes per year.

GPA GETS GREEN LIGHT

Georgia Ports Authority received final approval for its harbor deepening on 26 October. It will allow the Port of Savannah to better serve post-Panamax vessels and reduce shipping costs for containerised trade by \$213M a year, said the port. Savannah harbor will be deepened to 47ft (14m), and the Record of Decision shows that the project "is environmentally sustainable, economically viable and in the best interests of national and international trade," the port authority said.

KONECRANES DELIVERY

Konecranes recently delivered three rubber-tyred gantry (RTG) cranes to Luka Koper in Slovenia, the manufacturer said in October. The RTGs were ordered in January of last year and delivered on time. It has also received an order for eight RTGs from the Port of Houston Authority, Texas, United States. The port already has 49 of the company's RTGs in its terminals. The cranes will be delivered in autumn 2013. Konecranes will also deliver 12 automated stacking cranes to the port of Khalifa, Abu Dhabi, in 2013-2014.

VIRGINIA/CSAV CONTRACT

Chilean box line CSAV has agreed on a five-year contract extension with the Port of Virginia, United States. The Virginia Port Authority (VPA) revealed on 23 October that the contract guarantees CSAV will move a minimum of 9,000teu annually through the port, but that number is likely to be higher, said port officials. The contract also guarantees that VPA will receive container business from any new CSAV service that calls on the US East Coast from South Carolina to New York.

Port updates

DOUBLE SHUTTLE

The rail shuttle service between Flanders Terminal, Port of Dunkirk, and the Bonneuil-sur-Marne Terminal in the greater Paris area has doubled its frequency. Previously, it was one shuttle a week, but as of 10 December transport operator Greenmodal is running two 80teu shuttles a week.

FIRST FOR EGYPT

Suez Canal Container Terminal has carried out two successful navigation trials to test port access and turning basins for 15,500teu vessels. The first was conducted with *Eleonora Maersk* when it arrived from the Suez Canal's northbound convoy with a draft of 14.9m. The second occurred when the *Edith Maersk* approached the terminal from the north with a draft of 14.8m. It was the first time the Egyptian port has received vessels of this size.

A CLEANER GOTHENBURG

An increasing number of shipping lines are joining the Port of Gothenburg campaign for improved fuel quality. The latest member is Höegh Autoliners, which has registered seven vessels for participation in the port's greener fuel campaign. The campaign will continue throughout the whole of 2013.

LOCK PLANS ARE SET

Port of Antwerp laid its first concrete for the world's largest lock in mid-November. Costing €340M (\$440M) the Deurganckdoklock is due to open in the spring of 2016. The EU's European Investment Bank is contributing half of the project funds, KBC Bank is providing a €81M (\$105M) loan, with the balance coming from Antwerp Port Authority and the Flemish government.

USA TO ASHDOD

ZIM Luanda arrived at Israel's Port of Ashdod on 20 November, making it the first vessel to call there as part of the ZCA service's new route. The vessel unloaded its cargo of food, chemicals, paper, resin, and defence supplies from New York, Savannah, and Halifax. It arrived on schedule by increasing its speed, despite delays caused by Hurricane 'Sandy'.

Kizad draws high-volume clients

The causeway to offshore Khalifa port already has a basic rail infrastructure ready for track-laying

Kizad, the multi-industry enterprise zone at newly opened Port Khalifa in Abu Dhabi, is getting a lot of interest from high-volume industrial clients attracted by the prospect of rockbottom operating costs and efficient container movements. "We are seeing a lot of clients with 1 to 2M tonnes of cargo or 20 to 30,000 containers per year eager to sign up for a plot on the Kizad Phase 1 zone," Khaled Salmeen, Kizad executive vicepresident for industrial zones, told *P&H* during a visit to London. "We are also able to process large container ships at speeds that this kind of client requires."

He said 40-plus industrial clients had now signed up to custombuild production units next to the offshore port, which welcomed the first container ship to its semiautomated facility in early September. "The clinching attraction for industrial clients is the deep-sea port and the fully integrated logistics. They can get similar low operating and utility costs at other industrial zones in the Emirates, but not with a port on their doorstep," Salmeen explained.

As well as supporting the industrial zone's activities, Port of Khalifa has taken over the role of domestic container hub from Abu Dhabi's city port, Mina Zayed, which will increasingly focus on cruise traffic. "Of our containers, 95% are destination containers, and the same is true for general cargo," commented Salmeen.

Kizad

Another major attraction of the Kizad industrial zone is its planned rail link to the coastal rail network currently under construction in the United Arab Emirates. Phase 2 is now under tender and will run spurs into both Khalifa and Jebel Ali container ports, with completion expected by 2015. By 2018, the whole of the Emirates will be connected by rail, including ports on the Gulf of Oman. "Khalifa has already built the rail infrastructure. Jebel Ali is not so far advanced, but its planners see the value of a rail link to relieve road congestion and help further expansion," Salmeen explained. "Our prospective tenants realise the commercial advantage we offer by making rail transport available, besides the other commercial advantages."

Due to confidentiality agreements, most of the clients planning to set up production facilities in Kizad cannot be identified, but planned clusters include pharmaceuticals, metal, food, and paper industries. Among the few clients that can be named are Federal Foods and the two founding members of the aluminium cluster – producer EMAL and extrusion company Talex, a Kizad spokesman said.

"One of the [unidentified] food companies we are working with will produce one container per minute. You can imagine the congestion created if that company wanted to use just the road network. We have convinced this company that rail is a more efficient option and it has planned rail use into its facility," said Salmeen.

As part of the approval process, Kizad planners identify a company's utilities and logistic requirements. "Because of that we were able to allocate the right plot for [the food company] so it can take advantage of a rail spur going through its production facilities," he said. "About 60% of our plots will have a rail spur available."

DP World CEO Mohammed Sharaf told *P&H* his company welcomed the contribution that Khalifa would make in the Gulf region and said it would complement the transhipment role of nearby Jebel Ali port owned by DP World (see page 9)

"[Khalifa] will provide extra capacity to support the growth of Abu Dhabi, which in turn supports the growth of the UAE and the region. We believe the rapid increase in infrastructure, including ports and rail, is needed to support growth across the region and contribute to the efficiency of the supply chain overall, which is very good for trade," he said.

The clinching attraction for industrial clients is the deep-sea port Khaled Salmeen Executive vice-president industrial zones, Kizad

APMT modernises in Mexico

The foundation stone for the new Lázaro Cárdenas Terminal 2 (TEC2) at the Port of Lázaro Cárdenas, on Mexico's Pacific coast, was laid on 9 November. APM Terminals (APMT) will invest \$900M in the new deepwater terminal, which will be built in three phases, the first of which is scheduled to open in 2015. The subsequent two phases will depend on volumes and market conditions.

Joe Nicklaus Nielsen, managing director, Latin America Terminals at APMT, told *P&H* that Lázaro Cárdenas is an important part of APMT's business plan for the Americas and, in particular, its growth plan for Latin America. "With more than 550M people in Latin America and significant growth in trade foreseen, the existing infrastructure in Latin American ports is in need of modernisation," he said.

"The World Economic Forum estimated 142 countries ranking on port infrastructure efficiency in its *Global Competitiveness Report 2011-2012* report. It showed Mexico as number 75, Peru as number 106, and Brazil as number 135 – just as examples of countries in Latin America. With about 90% of world trade carried by ship, these data points underscore the need to modernise port infrastructure in Latin America."

APMT, Nielsen said, is involved in the modernisation process both at existing terminals and as regards new capacity. "We have an ongoing \$2.5Bn investment programme in Latin America that is focused on new port capacity in Callao (Peru), Santos (Brazil), Moin (Costa Rica), and, obviously, Lázaro Cárdenas (Mexico)," he pointed out.

Other terminals at the Port of Lázaro Cárdenas handle grain, coal, containers, dry bulk, and liquids.

APMT started work on its terminal in Callao, Peru, in September, as reported in the September/October 2012 issue of *P&H*, page 10. On 20 November it also announced plans to develop as part of a consortium a greenfield port project and free trade zone in Badagry, Nigeria.

Israel calls for building help

The Israel Ports Company (IPC), on behalf of the Israeli Ministry of Transport, National Infrastructure and Road Safety, has announced the first stage of an international tender for construction services for new container terminals in Haifa and/or Ashdod. The work will include breakwater and quay construction, dredging services, and terminal reclamation, said the port in a statement.

The first stage of the process is the pre-qualification stage. Eligible civil and marine contractors with required experience and expertise must be pre-qualified to participate in the competitive bidding process, which will take place in the second stage. The deadline for applying to be prequalified is 28 January 2013. Single entities or joint ventures can apply for pre-qualification under the tender terms, explained the port.

The IPC expects to complete the design of the new container terminals in Haifa and Ashdod this year and is concurrently progressing with the permitting process. The government has delegated the decision on the timing of the terminal

Haifa's Eastern and Carmel terminals

developments to the transport and finance ministers, who have not yet decided which of the two terminals will be developed first or if they will be developed in parallel. Initial operation of the first terminal is targeted for 2018, said the port.

Each of the terminals has been designed to handle EEE-size

vessels. Both projects include a primary quay 1,050 to 1,100m long, breakwater extensions and lee breakwaters of differing lengths, as well as extensive dredging and reclamation work.

Interested companies should email shlomos3@israports.co.il. More information on the tender: www.israports.co.il

People

TAMPA'S NEW DIRECTOR

Paul Anderson has been appointed Tampa Port Authority's next port director and chief executive. Anderson will succeed Richard Wainio, who had served in the position since March 2005. Anderson's most recent position was chief executive officer of Jacksonville Port Authority.

ICTSI'S NEW VP

ICTSI has appointed Guillaume Lucci as its new head to oversee expansion projects and greenfield construction. Lucci will be VP and global infrastructure director for the Philippines port operator.

NEW CHAIR AT TYNE

Sir Les Elton has been appointed chair of the UK's Port of Tyne. He received a knighthood for his services to local government and has been active in a number of local projects. Sir Les, who until recently served as the Port of Tyne's deputy chair, said: "We have made significant investments in the port's infrastructure... and the record results in both the volumes of cargo handled and the financial performance are the result of that investment".

PD PORTS FOR PEOPLE

PD Ports Group has won the Development of People award from transport industry organisation Chartered Institute of Logistics and Transport in October. David Robinson, chief executive of PD Ports, said: "We are delighted that our efforts are being recognised by such a wellrespected organisation."

SHAKEUP AT AHRENKIEL

Ahrenkiel Group has announced a management shake-up at its ship management affiliate. The division's managing director Frank Westphal left the company at the end of November and his duties will be taken over by his co-managing director Christian Suhr. As well as operating nearly 200 ships, the group offers ship financing and cargo logistics services, the latter specialising in Far Eastern chemicals transport and overland transport of logs.

Cash & cargo

PERSONAL BEST IN SPAIN Gijón Container Terminal (TCG), part of Port of El Musel in Spain, handled 4,884teu in one month – a personal record for the terminal, it said in November. Operator, Grup TCB, said that this achievement is partly due to a recent investment in two new Kalmar reach stackers and a Panamax gantry crane. Its equipment now includes two gantry cranes, one mobile crane and five reach stackers. El Musel has also launched a direct container shipping service with the Port of Casablanca, Morocco, reducing travel time by half to six days.

ICTSI VOLUMES DOWN

Philippines port operator ICTSI saw its 3Q/2012 profits decrease by 14%, despite slightly higher volumes handled across its terminals. The company posted profits of \$35.5M in 3Q/2012 against \$41.4M year on year. Higher profits from the previous period were attributed to an income of \$8.4M for the sale of the company's 17% stake in Singapore-listed Portek International Limited. For the first nine months, ICTSI saw a slight increase of 4% to profits of \$105.8M from 101.4M year on year.

ANTWERP UP AND DOWN

The Port of Antwerp handled 138,905,003 tonnes of freight during the first nine months of 2012. This represents a drop of 2.2%, compared with the same period in 2011, due mainly to the temporary halt in activities by Belgian Refining Corporation. Container volumes were down by 0.6%. Ro-ro and dry bulk rose by 18.6% and 1.7% respectively.

DPW CONTAINERS DOWN

DP World handled 17% less container volumes in the American and Australian regions resulting from the sale of its stake in Adelaide's container terminal. The state-owned port operator handled 1.8M teu in these regions during the first nine months of 2012 against 2.2M teu handled year on year. DP World handled a total of 42.4M teu between January and September in 2012.

Existing and proposed widths along the Elbe

Environmentalists halt Elbe deepening

An injunction that halts the Elbe River deepening project in north Germany was granted to environmental groups on 17 October. The €400M (\$524.9M) dredging project is aimed at facilitating calls of ultra-large container vessels (ULCV) with an operating draught of 14.5m to the Port of Hamburg.

The judges granted an application for an injunction by green lobbyists from Nabu and BUND for all dredging and construction works to be suspended. Hamburg's port authority had already begun preparatory work for the deepening.

Hamburg's box terminals handle 9M teu per year, but port managers fear that growth will be strangled without the dredging and volumes will shift to competitors such as Rotterdam and the new JadeWeserPort in Wilhelmshaven without improved accessibility for ULCVs.

The port's trade association UVHH has slashed its growth forecast for containerised cargo throughput in 2013 to zero, despite good economic prospects for major trading partners such as China, India, and Russia.

It blames delays to the deepening of the Elbe waterway for possible market share losses in favour of other northern European ports because ULCVs have difficulties reaching Hamburg's terminals. "The positive global prospects are dampened by the continued delays to the upgrading of the nautical channel," said UVHH chairman Günther Bonz. "A planning and approval procedure that takes more than a decade is hardly comprehensible for international shipping companies and causes massive uncertainty," he added.

Throughput growth in Hamburg is forecast to slow to just 1-2% this year, to over 9M teu, after 14% growth in 2012.

Smarter berthing could save money

The berthing process is among the least efficient element of overall port handling, a new study produced by SeaIntel maritime analysis revealed. Shipowners could save millions of dollars annually in fuel reductions if berth planning were optimised at a range of major world ports. "A significant part of the process from pilot station to tie-up is highly manual in many ports. Improvements can very likely be achieved through a combination of better IT support for decision-making, as well as stringent process optimisation," SeaIntel COO Alan Murphy said at 2012 Intermodal Europe in Amsterdam in November.

He explained that, for example, if the berthing process could be improved by three hours, enabling vessels to further cut their speeds to arrive exactly for their berthing slot, an annual fuel saving of \$40M could be achieved in Asia-Europe container shipping alone. "For global shipping, including tankers and bulk carriers, we have identified an annual savings potential in excess of \$300M in terms of fuel costs," he said.

DP World increases capacity in UAE

DP World said its Jebel Ali port in Dubai will boost container capacity by 4M teu to 19M teu. These comments came shortly after Abu Dhabi's Port of Khalifa opened in September (see page 6). To accommodate these volumes, Terminal 3 will be launched in 2014 with a quay length of 1,860m, a depth of 17m, and a 0.7km² storage yard.

It will be equipped with 19 ship-to-shore quay cranes and 50 rail-mounted gantry cranes. "The expansion of capacity at our flagship port, Jebel Ali, is in line with market demands and the changing needs of our customers," said DP World chairman Sultan Ahmed Bin Sulayem. "The Arabian Gulf region is both a vital hub serving the two billion people in the wider Middle East, north and east Africa, and the subcontinent, and a significant gateway for goods originating from, or destined for, the rapidly growing GCC (Gulf Cooperation Council) market," said a company representative. "We believe the rapid increase in infrastructure such as ports and rail coming on line are actually needed to support that growth as they contribute to the efficiency of the supply chain overall, which is very good for trade."

Both Khalifa and Jebel Ali ports are expected to cater more to the increased transshipment demand in deep-sea ports, as compared with other ports being built, such as Kuwait's Boubyan and Iraq's Grand Faw, which are situated around the generally shallower waters of the northern Gulf.

Pallet change saves money

Port of Wilmington, North Carolina, United States, is using pallets to increase its business. Frontier Spinning Mills, a North Carolina spun yarn producer and one of the largest such suppliers to the international weaving industry, made a \$1M investment two years ago to purchase 8,000 pallets.

The new 4ft x 3ft pallets were smaller than the standard 4ft x 4ft pallet used by the textile industry. The reduction in size allowed Frontier to maintain the same amount of storage capacity using a standard 40ft ocean container for an all-water route to a garment manufacturer in Central America. Frontier has achieved this by loading larger domestic boxes that were being transported by rail to the Port of Miami, and then transloaded on to ships.

The amount of money saved per box moving all-water versus inland transportation is substantial, according to the port. "Our benefit at the port has been more throughput," North Carolina State Port Authority's vicepresident for liner sales Peter Klaus told *P&H*. Klaus estimated that its textiles volume has increased 20% since the all-water moves began in July 2011.

Also making possible the supply chain switch is Maersk's South Atlantic Express (SAE) service, which began calling at Wilmington in 2009. The service links several US East Coast ports with Santo Tomas, Guatemala, and Puerto Cortes, Honduras. "We've been able to increase the amount of containers we're putting on that ship just by changing the pallet size, thereby making the business more profitable," Klaus said.

Maersk's SAE rotation runs parallel to a highly efficient textile supply chain. Raw material produced in North Carolina and other southeastern states is exported to Central America, where international garment makers manufacture finished goods such as T-shirts and socks that are then imported back to the United States. Klaus believes other textile manufacturers could take advantage of the pallet switch. "If they're willing to use or invest in larger pallets, the service is already in place for better container utilisation and the benefits of all-water transport."

Innovation at the Port of Wilmington has meant savings for customers

Cash & cargo

ENERGY UP IN SWEDEN

Container throughput at Port of Gothenburg was up 4% during 3Q/2012, handling 226,000teu. It also handled 6.1M tonnes of oil, diesel, ethanol, asphalt, and other energy products – up 30% compared with the same period in 2011. The port saw a 4% downturn in ro-ro cargo, shipping 127,000 units in 3Q/2012. It has seen a switch from road to rail, with 10% more cargo moving by rail in that guarter.

ROTTERDAM HOLDS ON

Cargo throughput at the Port of Rotterdam increased by 1.7% to 333M tonnes during the first nine months of 2012. The port attributed this growth to exports that rose by 7%. Throughput of crude oil was up by 6%, mineral oil products were up 13%, and other liquid bulk was up by 5%. Containers also rose by 2%, as did ro-ro. Agribulk was down by 15%, and iron ore and scrap was down 16%. Coal was down by 5%, other dry bulk down 8%, LNG down 6%, and other general cargo was down by 24%.

NUMBERS UP AT LA

The Port of Los Angeles' container volumes increased by 5.57% in September 2012, compared with the same month the year before. It was the strongest single month in overall volumes since August 2010, said the port. Imports increased by 3.38% and exports decreased by 2.56%.

INCREASES IN SHANGHAI

Shanghai Free Trade Zone (SFTZ) has witnessed a 14.4% growth in imports and exports during the first nine months of 2012, hitting \$84.5Bn, the SFTZ administration announced in November. It said SFTZ is responsible for 25.7% of Shanghai's gross import and export volume.

HAMBURG LOOKS UP

The Port of Hamburg achieved total throughput of 98.1M tonnes in the first nine months of 2012. General cargo throughput at the north German port of 69.2M tonnes was 0.2% up on the previous year's total.

Stand up for <u>good Science</u> Claims that oil spills cause long term damage to the

environment are often exaggerated, **Dr Karen Purnell**, managing director of ITOPF, tells *P&H*

> An effective response is more likely when there is a clear, confident and assertive response

> > Dr Karen Purnell MD, ITOPF

cience can be used to support almost any argument. The real science behind oil spills is often different to what the media portrays and, from an environmental perspective, may not be the massive disaster that is first feared. It is true that oil spills can have serious negative effects, but these are usually related to the economy or the image of the affected area. Mother Nature is very good at coping with one-off oil spills and most beaches damaged by oil pollution usually recover within a season. Against a background of chronic pollution from farming and urban areas, in the form of run-off containing high levels of nutrients and oil sheen, the occasional accidental oil spill is unlikely to have lasting consequences on the environment.

When a representative from ITOPF responds to an incident they work mainly with the affected country's government agencies to ensure clean-up techniques don't cause more harm than good. This can be a delicate process to ensure decisions are based on scientific and technical criteria, as well as to overcome the multitude of different pressures and interests that may appear during an incident. A large part of ITOPF's role is educational, working with local scientists to understand their concerns and to inform them about the fate and effects of oil in the marine environment. This is especially important when there is frequent misconception and alarm about the effect of an oil spill on important resources, such as fisheries [see box].

In ITOPF's experience, an effective response to an incident is more likely to be achieved when there is a clear, confident and assertive response based on technical criteria rather than politics. Some governments or organisations do not know what to do after an oil spill – should they arrest the ship, demand high penalties from the shipowner, or hire expensive and impressive-looking clean-up equipment? When working with an affected country ITOPF's technical advisers offer their experience and scientific knowledge to the local authorities as they work together to evaluate the likely behaviour and impact of the oil and ascertain whether local resources are sufficient to implement an effective clean up. The key relationship for ITOPF's technical team is with the local authorities. ITOPF's aim is to give them the confidence to do the right thing and help them make the best decisions on behalf of the environment and their country. It tries to steer those responsible for undertaking the clean-up away from techniques that, in the past, have proved ineffective, or worse, cause more harm than the original spill.

Governments often want to be seen by their public to be taking action and so can be tempted to call in sophisticated equipment but often it's not needed: a high pressure hose to Above clockwise: wildlife cleaning; marsh following the *Vicuña* explosion off of Brazil; cleaning oiled mangroves in Singapore

remove oil from a quay wall in port may be the best piece of kit for the job; or a bucket and spade to remove the top layer of sand impregnated with oil could be far more beneficial to the environment than deploying diggers and large pieces of industrial equipment to excavate the site.

As many incidents occur in and around the approaches to port areas, port authorities play a very important part in the response to an incident and may influence the success or otherwise of the outcome. On the whole, most port authorities are realistic and practical, recognising the need to balance responding to the incident against the pressures generated by other users of the port and, where possible, keeping business running as usual. Port authorities often have an important liaison role between those linked with the casualty and stakeholders of the port, and may need to 'broker' compromises in the best interest of reducing pollution damage and disruption to business activities. A good example of this is allowing areas within the port to be used to receive containers from a stranded vessel, or waste from the clean-up operations, or informing fishermen when activities around the casualty may affect fishing.

As education and communication play a

big part in dispelling misconceptions surrounding oil spills, having a well written and rehearsed contingency plan that port authorities can rely upon in the event of a spill will help to instil confidence in their actions. This is especially the case if the port authority has invested time to build good relationships with their stakeholders, in particular the shipping companies and environmental organisations who could be involved in case of an incident. It is vital that this plan is a living document and not just a tick-box exercise as ill-prepared plans will provide the 3Ps - public, politicians and press - with the opportunity to exploit weaknesses and undermine the response, as well as the authority of those in charge. The bottom line is if the public sees a confident response it is less likely to be concerned.

ITOPF was established in 1968 as a service to those parties who may be affected by an incident, be they industry or government, and it has no political or commercial agenda. ITOPF is essentially a federation of shipowners, funded by its members and associates via their P&I Clubs. It also has observer status at both the IMO and the International Oil Pollution Compensation Funds. Due to its expertise and objectivity, it is frequently used as an expert source for both government and industry.

ITOPF's technical role has grown in the past 45 years so that it is now recognised as the primary source of objective technical advice relating to spills of oil and chemicals in the marine environment.

All of ITOPF's technical staff have scientific backgrounds and when an incident takes place ITOPF's role is to provide objective technical advice on ways to reduce pollution damage to the environment and the economy. **PH**

ITOPF is the International Tanker Owners Pollution Federation Limited More info: www.itopf.co.uk

Fish facts

Birds are often affected by an oil spill as they see the oil sheen and think it is fish being trawled off the back of a vessel and head straight for it. However, there is a misconception that oil spills kill a lot of fish but there is no data to support such claims. This is an example of poor science where sensationalists, such as mainstream media, and organisations with a vested interest, disregard the facts. Where fish are caged or in the larval stages of life then the effects may be more severe.

Understandably, the effect oil spills can potentially have on fisheries is a very emotive topic. Fishermen don't generally have the scientific knowledge themselves to determine whether the fish are safe to eat and rely on their government's advice. Governments may place a ban on fishing due to an oil spill but these are rarely based on plausible health concerns, rather they are used to protect the market. There is little chance that fish affected by oil would be eaten, as the taste of the oil would make it inedible. The biggest effect of an oil spill on fishing is business interruption, either because vessels stay in port because the fishermen don't want their equipment covered in oil or because the ban prevents them from fishing. Nevertheless, given that it is common knowledge that over-fishing is having a detrimental effect on fish populations, a fishing ban has frequently benefited certain fisheries by providing them with protection, ultimately resulting in higher catches when fishing resumes.

Four corners for success

Implementing a successful port/city interface should be based on four pillars, reports seaport planning expert *Jason Sprott*

The port/city interface is becoming one of the most pronounced issues facing modern cities around the globe. As urbanisation rates increase in both developed and developing countries, more and more is being asked of cities and urban areas, in particular their ability to balance the needs of communities and operational industrial precincts such as global seaports.

Historically this tension did not exist, with seaports and the shipping industry playing accepted and critical roles in the successful development, and in some cases the post-war rebuilding, of cities and culture. Seaports not only acted as portals for the exchange of goods and commodities, but also for ideas and cultural and fashion trends. They undeniably had a strong influence on global city planning and architecture style.

In 2011, I was fortunate enough to be able to travel through Asia, Europe, the USA and Canada as part of a Sir Winston Churchill Fellowship. The fellowship was awarded to further my research on sustainable seaport planning, specifically in the emerging field of port/city interface management.

There is an old saying in the port industry that 'if you've seen one port, you've seen one port'. This may seem an unremarkable statement, but during my travels it became evident that global ports differ geographically, culturally, environmentally, economically, historically and in the manner in which they 'sit' within an urban context. Despite these differences, they do share a set of common issues and challenges, including:

clear realisation that managing a successful port/city interface will be one of the most demanding and resource-intensive activities in the future;

increasingly 'activated communities' – communities that are becoming more interested in and hold greater expectations of ports, regarding environmental performance and improved operational standards;

the need for an increased management focus on 'port/city governance'.

Modern port/city governance should be guided by four pillars to ensure successful interface outcomes. These pillars are increased stewardship, strategic protection of port and access areas, strategic policy alignment and enhanced communication.

Increased stewardship: partnerships between cities and ports need to be strong and productive, with port and city managers demonstrating goodwill and commitment to achieve better urban and environmental outcomes. They need to take ownership of these challenges. The Port of Rotterdam, Netherlands, for example, demonstrates very strong stewardship through its values and actions on the ground in the city of Rotterdam. It has a strong set of values that enable it to engage with its port community and stakeholders. The port explained that its core values are passion, togetherness, continuous improvement and reliability, and that these values

Adjoining industrial corridor in Seattle

guide the way the port carries out its work, help stimulate co-operation and enable it to realise its business plan. These values affect the way the port authority is seen by the outside world.

The port has a public and port community stakeholder programme in place, and uses a variety of social media tools, including Twitter, Dutch social networking website Hyves, YouTube, LinkedIn and RSS feeds from the authority's website.

Additionally, and in synch with the Maasvlakte 2 expansion project currently under way, the port has developed an on-site port community facility, known as FutureLand, which has a wide range of information on the project and serves as the community portal for general port information.

Strategic protection: critical land areas utilised by the port and surface transport corridors leading to ports must be statutorily protected. London's Safeguarding Wharves provision is a particularly good example of this pillar. It is a statutory planning instrument that has been put in place to manage land interface issues.

The provision protects existing wharves and operational areas by:

only allowing critical areas of land to be used for specific activities, such as handling waterborne cargoes;
 promoting development of these areas to increase their use;

■ specifying that any developments that take place adjacent to or opposite the safeguarded wharves are designed to minimise the potential for conflict of use and disturbance.

In the USA, led by the governor of the state of Washington, the Container Ports and Land Use Working Group was set up and has resulted in statutory change that affects the city of Seattle in particular. It focuses on targeted port land uses, which maximise port efficiency; appropriate adjacent and supporting industrial development; and critical infrastructure corridors for road and rail. It has resulted in clear recognition and protection of the port itself, surrounding land uses and, critically, the transport corridors leading to and from the port area.

Strategic policy alignment: strategic clarity between national, state, regional and local polices should be implemented to ensure alignment of land, freight and environmental policies in and around port city areas.

Singapore's urban planning system is based on the hierarchical'layering' of statutory planning instruments that assists with its management of the port city interface. The three layers are:

■ The concept plan (40–50 years' time) tells Singapore's future story. It is the basis for its long-term vision and all subsequent planning instruments must accord with this plan.

The master plan (10–15 years' time) converts the concept plan into detailed plans to guide development.
 Place plans sit beneath the master plan and consider the detail in the individual projects.

These three strategies combine to provide clarity as to how the areas in and around the country's port areas should be used.

Enhanced communication: with all port stakeholders, including communities, port tenants, interest groups, non-governmental organisations and government agencies. Direct, targeted engagement based on clear and open information sharing must be a foundation for ports, airports, and any other major infrastructure nodes within cities and regions.

Los Angeles, like Rotterdam, has a proactive community and stakeholder engagement programme in place. The connections it makes with local communities, the city council and the state of California are considered fundamental to the ongoing success of the port in future years. It is evident that this is a strategic area of focus for the port management team.

The port has released a number of 'port fact sheets', including one for public use that highlights local features in and around the port, and has proven very effective as it engages with the community and provides insight into the port's operational areas and surrounding non-industrial activities. The port's website is also geared towards public and stakeholder engagement and uses a range of social media tools to assist communication and information sharing.

In Shanghai, China, the municipal government has established the Shanghai Urban Planning Exhibition, situated in a purpose-built building on People's Square. The detailed scale model outlines the future vision of the city and includes an interactive display regarding the role of the seaport and airport in the overall development of the city, region and country.

Research into the port/city interface is in its relative infancy. The Organisation for Economic Co-operation and Development (OECD) is taking a proactive interest in this topic through its Port Cities Programme, but a clear and consolidated framework for modern port and city governance is required.

Ongoing research and collaborative work with organisations such as IAPH, OECD and the Worldwide Network of Port Cities will help achieve better urban outcomes for ports and cities in the future. **PH**

Jason Sprott is director of Sprott Planning & Environment, a land-use planning and environmental management practice. The Sir Winston Churchill Trust provides funded short-term fellowships to Australians with the aim of sharing increased knowledge with a particular industry. More info: jason@sprottplanning.com

Developing life-long relationships

Genoa's winning project aims to get the community interested from a young age, learns *P&H*

Port of Genoa's Citizens of the Port project won the 2012 ESPO award on 7 November. It was chosen from 11 finalists, as in the opinion of the jury, it was "the most convincing project for engaging with young people."

'Youth' was the chosen theme for the 2012 competition as "societal integration of ports also means making future generations of employees, neighbours, and other stakeholders aware of what the port sector has to offer," ESPO's secretary general, Patrick Verhoeven, told *P&H*. "Awareness has to start at an early age and this is why the 2012 edition of the ESPO Award wanted to promote projects of ports reaching out to young people, whether these are school children, students, or young professionals," he said.

ESPO said in a statement that the jury "was especially impressed by the comprehensive nature of the project and the number of highly innovative and interactive components it contained, which encourage young people to be curious and inquisitive about the port's activities in a very creative way". The Citizens of the Port project is a major exhibit at the Genoa Port Center and was created in 2008 to promote the port's current and future activities, and to make young people aware of its economic, social, and cultural role in both the local and international environments. It also aims to highlight career opportunities within the port and its wider maritime cluster.

The project consists of an educational programme that is run during the school year from September to June for students aged 8 to 18 years. This includes a visit to the exhibition, boat or bus tour of the port, as well as visits to some of the port sites such as terminals, Customs, the VTS control tower, and shipping companies.

It has also developed a number of sub-projects that are tailored to the age groups of those taking part. For example, for 15- to 18-year-olds the Film Review and Making Movies project features not only specially screened, port-themed movies but also offers students the chance to make their own music video using the port as a backdrop. As part of the

Chain of the Port project, 8- to 13-year-olds get the chance to go on a Genoa Port safari. Students are taken on a tour of the port and given binoculars, a map, and information cards and are encouraged to make their own observations.

The project, which has been updated three times, has achieved a high rate of involvement. In 2011, 241 classes took place with 4,974 students and 438 participating teachers. A number of stakeholders and organisations, including the Regional Scholastic Office of Liguria, Teachers Club, and the Genoa Science Festival, have helped promote and support the project. The port and city of Genoa are hemmed in by the sea on one side and mountains on the other, and so a positive relationship with each other is vital.

The port authority's president, Luigi Merlo said that the award recognises the commitment that the port has "to improve integration between the port and the city of Genoa. The presentation of this prestigious award confirms that we have been working in the right direction, and we shall continue to adopt an approach which thrives, not on antagonism, but on social harmony." **PH**

Media savvy

A weekly TV programme is being broadcast by Hamburg Port Authority to give the local community an authentic insight into its daily business operations

afen TV is a 12-minute TV magazine show produced by the port in collaboration with local TV channel Hamburg 1. It includes news stories on subjects such as dockworkers, the port's managers and decision-makers, events and festivals, as well as ongoing development and expansion projects.

The show first transmitted in November 2009 and in 2011 it became available on YouTube, giving viewers the opportunity to comment on topics, ask questions, and contact the port authority directly.

The show is intended to emphasise the economic importance of the port and depict it as an attractive tourist destination with a lively cultural life, presenting the sometimes complex topics in an illustrative and informative way.

"Hafen TV is one of several avenues we use to inform the community about our activities," said Wolfgang Hurtienne, managing director of Hamburg Port Authority and chairman of the IAPH Port Planning and Development Committee. "We want to create more transparency and show how important the harbor business is for the city. At the end of the day, of course, we also want to improve the public opinion of the port."

Community engagement is taken very seriously by the Port of Hamburg, which holds regular meetings with residents living close to the port or in the extended harbor area who may experience noise pollution produced by construction work and port operations. "A personal exchange with our neighbours is very important to us," Hurtienne told *P&H.* "This way we can inform our neighbours about our plans and activities and involve them at an early planning stage." **PH**

More info: www.youtube.com/user/ham burgportauthority?gl=DE&hl=de

More info: www.espo.be

Music to customers' ears

Valenciaport has gained a competitive edge through its Marca de Garantia quality mark, reports **Scott Berman**

where the port as not directly control." Nevertheless, "final clients perceive the port as a whole and if one of the parts is not efficient, they will judge that port as not reliable." That's the view of Emilio Aliaga Lleó, the director of Marca de Garantia for the Port Authority of Valencia (APV) in Spain.

Aliaga's comment may resonate with many ports and, according to participants in, and observers of, the port community of Valenciaport (the name of the whole port), effective responses to the problem that comment presents must be unified and systemised: guaranteed, and above all, collaborative.

Valenciaport operates in a unique, economic, geographic, cultural, political, and regulatory environment. Yet for years, it, like many ports around the globe, has seen its captive traffic go down while competition goes up. In other words, clients have more options than ever before.

To make itself stand out from the competition, Valenciaport has invested in a quality structure called the Marca de Garantia, or Quality Mark (QM). Within the QM is a diversely comprised quality committee. The system was instituted in the 1990s and so it isn't new, nor is Valenciaport alone among ports in making strategic, concerted efforts on quality. But it is a case study in how quality has helped the port community increase its competitive edge.

The quality committee includes representatives from a wide range of entities that form the port community. These include the port authority, freight forwarders, maritime authorities, port pilots, customs, the container depot, shipping agents, unions, and others. Each group chooses its committee representative.

The 20-member committee meets at least quarterly to discuss common issues and set service quality guarantees and operational procedures to comply with those guarantees. The committee also proposes improvements in procedures and training in various processes. Between those quarterly meetings various subcommittees study topics that are brought up for discussion by the committee.

When it was first set up and for some years to follow, QM was managed by an independent foundation and provided economic compensation for documented noncompliance. Amounts of fines varied – berthing delays, for example, were fined based on the length of the delay – but to take a general gauge, in 2009, QM users paid 191 vessels a total of €57,999 (\$74,000).

That system has changed. Valencia's regional government decided APV could take over QM's management from the foundation. And QM members voted to set aside economic compensation in most cases, a practice more typical under Spanish port law. QM members vote on that proviso on a yearly basis and may or may not vote to reinstate compensation in the future. What's unchanged is the collaboration, aimed at quality through a transparent process.

So today APV owns and manages QM, shepherding complaints along and responding to them. It looks into each complaint, finds whether there has been noncompliance and, if so, which company within the QM is responsible. APV then works with unsatisfied clients and determines responses. Aliaga explains that APV responds with detailed explanations of what the cluster will do to prevent the problem from reoccurring.

QM is a voluntary quality system, over and above compulsory policies set by law and the port authority, that guarantees services and follows up with set procedures if there is not compliance, says Aliaga. QM users guarantee services such as timely berthing, safe operations, container flow and delivery, and speedy processing of bills of lading. The QM users also sign up to the complaint and response process.

Those users are vetted by outside auditors and reviewed before admission to the system by the quality committee. At present about 90 companies are QM users/members, says Aliaga. Each has made commitments in terms of training, providing information, following regulations, and, most crucially, using a common computer system. QM members now handle almost 80% of the port's traffic and Aliaga expects membership of the scheme to reach a total of about 160 companies before 2014.

Kieran Ring is CEO of the Global Institute of Logistics (GIL), which has worked with Valenciaport and has recognised its QM system. He told P&H: "Valencia is a diamond - forged under extreme pressure" including its economic and cultural competition with Madrid. He credits port and government officials for their determination over the years to bring Valencia and its port forward, granted that it had an inventive environment locally, including innovators such as the University of Valencia.

Port clusters such as Valencia's have a greater chance of becoming logistics and economic powerhouses. Interaction with a port's city, regional and national government is a means towards that end and may involve collaborating on issues ranging from local traffic issues and development to national regulatory policy. Community relations is a key part of the process, Ring asserts, and should be as prominent outside a port as inside it.

The Quality Mark council represents the community of Valenciaport, members of which now handle almost 80% of port traffic

How to set up a quality guarantee system

- Provide hands-on, "intensive leadership" to start, implement, and sustain the initiative, Aliaga said.
- Aim for a well-defined goal.
- Communicate your vision. Show how and why a port should move "from 'l' to 'we", Aliaga said.
- Set up a verifiable, transparent policy for redress.
- Make a unified port community IT system. It is crucial, Ring emphasised. In his view "the QM and IT are analogous".
- Establish a team culture with plenty of interaction and information exchanges.
- Manage with tact.
- Don't rest on your laurels. As Aliaga said: "Things change constantly, right? So there is work we have to do constantly to improve things."

and full integration into the port community.

The QM is a catalyst to achieve those things, as is the broader concept of port clusters. Valenciaport's interdependent public-private approach, embodied by the quality system, is a port cluster, and the port is also active in this gathering movement. Its authority chairs a port cluster and governance committee set up by GIL.

Customers have increasing options. Ring believes the Organisation for Economic Co-Operation and Development put it best in a 2009 report when it said: "From the ports' point of view, the main consequence of developments in supply chains is that their market power has declined. Ports operate in an increasingly competitive environment ... as nodes in supply chains increasingly prone to switch routings (route competition)."

Valencia's QM "asks the owner of cargo: 'What do you expect from the port in total?'The response is probably 'reliable, seamless service," says Ring. The key results, as Aliaga explains, are more companies joining QM. Container crane performance is 30% more efficient today than before QM and Valenciaport's Sagunto car port facility has been named best in its class by the Spanish Association of Automobile and Truck Manufacturers.

Collaboration throughout the port community has gradually become "natural and easy. Problems are seen as something that can be solved by the group," Aliaga says. "We all want the same thing: simplicity and efficiency. And in the end, all participants feel like protagonists and keys to the QM."

APV can now be characterised as the conductor of a collaborative port community, rather than being perceived as solely responsible for port performance. The guaranteed service they strive for together is not only strategic but is also intended to be music to customers' ears PH

FEATURE

Manage risk and reduce costs

Ports will always be at the mercy of the weather, but if you can show you have properly assessed your risk, you'll find favour with the underwriters, reports insurance journalist **John Guy**

Hudson River

NO SKATE BOARDING IN SINATRA PARK he devastation caused by Hurricane 'Sandy' on the northeast coast of the United States is a stark reminder that ports and terminals need to be fully prepared for major storms wherever they are located. Port facilities across the eastern seaboard had some days' notice of the impending arrival of 'Sandy' and yet the damage has still seen ports without power and unable to re-open just as the demand for goods is at a peak.

When such events occur, port operators look to their insurance policies and, prior to the events in the wake of 'Sandy', underwriters have been getting ever more prescriptive in terms of the level of data they are looking for ports to provide on risk management and exposure levels. In the past year a series of major natural catastrophes in Asia have impacted port facilities, and the effect on the global supply chain has been profound.

Ports in the USA moved quickly to secure facilities, some placing containers around buildings in an attempt to create wind breaks and removing stacked containers to limit the potential for damage. Cranes and other machinery were secured but even the best efforts can never eradicate risk entirely.

Mike McGratten, executive director at insurance broker Willis Global Marine, believes port operators have to look at preparing for the worst rather than simply looking to cover every eventuality. "Sandy' was a good example of why ports buy insurance," he told *P&H.* "The ports get three or four days' warning of such an event and as such can prepare for its arrival and protect their assets".

He said risk management remains a vital part of a port's ability to recover from such events and to obtain the best possible insurance terms and pricing for cover. "When it comes to a focus on risk management, there are some good ports and some not-so-good ports," he added. "But the level of risk management can make a clear difference on your balance sheet."

Ports are obviously open to the risks associated with major storms, said McGratten, but the greatest concern for many in recent years has not been the named hurricanes, typhoons, and natural catastrophes but the rise in the occurrence of wind spikes. "Wind spikes are an issue for ports on a number of levels," he said. "The biggest issue is the fact that they tend to be sudden and there is little or no warning, so unlike 'Sandy', for example, there is no time to make any preparations.

Photo: AP Photos/Charles Sykes

The Hudson River

swells and rises in

Jersey, as Hurricane

'Sandy' approaches

Hoboken, New

"Second, they are not named storms and therefore will not fall within the port's natural catastrophe coverage deductible. Wind spikes are a growing concern for many." A 'deductible' is the amount of money that the policyholder will pay towards any claims, similar to an 'excess' on personal insurance.

McGratten believes ports need to concentrate on the major losses. "We see ports looking to take out insurance for the major events rather than the smaller attritional losses," he adds. "There need to be risk management strategies in place to reduce the potential for the smaller claims and those that do occur will more than often fall within the port's deductible so will be paid by the client. It is the major risks, such as windstorm perils, that ports need to insure." Those ports that can provide the data that demonstrates that they take risk management seriously and have robust systems in place will get the best treatment from underwriters, McGratten asserted.

He also warned that harsh economic conditions are still driving the temptation to reduce spend on risk management. He said he can see the temptation for operators "but it is a false economy as it opens up the potential for claims."

One area often given insufficient consideration is insurance cover for business interruption, claims Stuart Fraser, an insurance broker with Miller Insurance. "Most operators have a good idea of the value of their machinery and assets, but may not look at the business interruption," he said. "If there is a major event affecting a number of ports, there will be a big increase in the demand for replacement equipment. We advise our clients to have a full contingency plan in place that includes agreements with mobile crane and other equipment suppliers that they have first call on replacement equipment if needed."

Business interruption claims can be the most complex to deal with, explained Fraser. "The biggest threat to a port is if it is unable to operate and its clients go elsewhere. Will the port be able to win them back when it is up and running again?" He pointed out that the events of this year proved that extreme weather was not concentrated in the peak risk zones.

"Port operators need to prepare for extreme events," he told *Ports & Harbors.* "There is capacity in the insurance market but it is not underpriced. Operators have to show they are aware of their risks and have taken steps to minimise those risks, which includes having contingency plans to minimise the effects of business interruption."

Nick Lewis, a hull and liabilities underwriter at Allianz Global Corporate & Specialty, agrees. He explained that ports need to be aware of the potential for severe weather and have plans in place to mitigate the chances of loss. "The biggest issue remains extreme weather events and their impact on ports and harbors across the world. However, equipment such as cranes are designed for ports where extreme weather is a problem and we would like to believe that ports have plans in place in order to react to extreme weather events."

One area that has seen a rise in demand is the ports' response to the new breed of bigger vessels both containers and cruise ships. "They require bigger facilities and, in the case of the container vessels, larger wharves and cranes to handle the loading and unloading processes," said Lewis, who agreed that the market is looking for ever greater levels of information. "The equipment is naturally larger and comes at a higher cost, which affects insured values.

"We work via the intermediaries, who are aware of the need for information on risk management and exposures. It is fair to say the more information that underwriters obtain, the better able we are to price the risks accurately." **PH**

Weighing up the **opportunities**

MAERSK

SEALAND

TT Club's risk management director **Peregrine Storrs-Fox** advises all involved in container operations to plan for regulatory change in container weighing

he outcome of the International Maritime Organisation's (IMO) 17th Session of the Dangerous Goods, Solid Cargoes and Containers Sub-committee (DSC/17) in London in September was not conclusive in terms of agreeing changes in international law relating to the verification of container weights. Valuable progress was made leading to the recommendation to amend

EALAND

SOLAS (International Convention for the Safety of Life at Sea) to require that freight containers should not be loaded on board a ship without a verified weight.

BROMMA

The detail of how this is to be achieved will now be considered by a correspondence group of IMO members, which is tasked with confirming the necessary amendments to SOLAS along with comprehensive guidelines, to be submitted to

FEATURE

There will be difficulties in achieving verification of gross mass at the point of packing in all instances

the next DSC meeting in September 2013. The guidelines will resolve how the revised regulations can be enforced in every containerised situation, including the least sophisticated operations.

The direction towards tighter regulation seems clear, so TT Club is urging shippers, forwarders, ports and terminals to start planning for the reality of the requirement of accurate weight information.

The logical place to ensure that the gross mass of a consignment packed in a container is correctly declared is prior to the start of transport – the point at which packing is complete. Many recognise that there will be difficulties in achieving verification of gross mass at the point of packing in all instances. It is also accepted that weighing at an intermediate point prior to loading on a ship would achieve compliance, since laden and sealed containers generally proceed uninterrupted from the point of packing to the point of deconsolidation. No doubt the capability to weigh containers accurately inland will become more widely available, but ports clearly sit at a key nodal point. As long as the container can be weighed in the port area in sufficient time to update the ship stowage plan, verification may end up being at that point.

At the ship-to-shore interface ... terminals could offer container weighing as an additional service and pass on the costs to the shipping lines Stipulating that a container cannot be loaded on board without a verified gross mass is certainly attractive to enforcement agencies. They will more easily be able to address the ship and the terminal than a shipper, who may be distant from the port or resident in a different jurisdiction. These circumstances may, however, increase the legal exposure of a terminal operator. Apart from simply not loading without verification, the terminal may be contracted actively to carry out the weighing process or passively to check that the verification is true.

Either way there is some potential for mishap, resulting in an accident or liability for increased cost. The change in exposure may be under contract, tort or statute. Although this might be the case, it is likely that terminals will be able to satisfy the new obligations and mitigate their exposure by negotiating terms with the lines that limit liability and/or take insurance cover. On the latter point, while the TT Club has not formally assessed this change in exposure, underwriters are generally adept at accommodating legislative revision. Indeed, from a risk perspective, it can be argued that there is a balance between the implications of complying with new regulations and the consequences of accidents.

The challenges for terminals, should they be requested to weigh or check-weigh containers, will be real but not insurmountable. There will be necessary procedural amendments and the probable introduction of new infrastructure to facilitate weighing export containers received by road, rail and barge. Also, IT systems and processes will need enhancement to manage the flow of information.

It would seem there is growing acceptance that the most effective method of weighing containers individually is via the twistlocks of the spreader on the receiving handling equipment. A weigh bridge process is more complex since allowance has to be made for the conveyance – road rig or railcar – and it is impossible to weigh two 20ft boxes carried on one conveyance. There are today two recognised systems on the market to weigh the load on the twistlocks: Lasstec uses a fibre-optic sensor imbedded in the twistlock, whereas Bromma has adopted a load cell using conventional strain gauges.

The technical challenge for these systems is to make the sensors and load cells shock- and vibrationresistant, inert to the rough handling environment, and still provide a high level of accuracy. Savvy terminals will also seek safety benefits beyond check-weighing, and look to load eccentricity, 'snagload', and accidental trailer-lifting detection.

The cost incurred by terminals and lines in implementing such changes are likely to be recoverable between the contractual parties as is predicted in the World Shipping Council's submission to the recent IMO session. Providing an additional service is something that the terminals could expect to add to box handling or other service charges and no doubt the lines will pass a similar charge to shippers. Equally, offering the service to others apart from the lines, in order to achieve compliance with the regulation, will be directly chargeable.

The effort to attain accurate container weights through industry guidance has had negligible success. Many shippers and forwarders have already taken steps to comply with the existing SOLAS regulations (Chapter VI, Part A, Regulation 2) to provide "appropriate information on the cargo sufficiently in advance of loading to enable ... proper loading" of the ship. This is not always the case, and the combination of little enforcement attention and anecdotal evidence of inconsistent application of standards by shipping lines has severely hampered a universal adherence to accurate declaration.

In these circumstances it is clear that a level playing field is only achievable through international regulation which may, as discussed, throw additional costs and increased exposure onto terminal operators. However, it is likely that this impact could be substantially mitigated for terminals – and the collateral safety and operational opportunities have many positive aspects. Since implementation will be some four to five years hence, there is time for the parties to deal with the requirements and maximise the opportunities. **PH**

security below The surface

Ports are taking steps to protect themselves against terrorist threats by using sophisticated underwater sonar surveillance. *Stephen Cousins* reports

> Inderwater surveillance was once the exclusive domain of the military, but in the wake of 9/11 and the subsequent increase in global terrorist activity, commercial ports are now moving to exploit the technology to detect potential threats.

> Advanced underwater surveillance systems utilise specially configured sonars to detect swimmers or divers and differentiate them from marine life. They can also be deployed to inspect hulls, piers and the ocean bottom to reveal suspicious objects.

> Given the difficult acoustic environment of a busy port, where vessels are in constant motion, depth sounders ping and different bodies of water mix together, it is a particularly tough challenge to 'see' through the noise and recognise potential threats, which requires advanced hardware and software.

> Fortunately for ports, the technology is now more accurate, accessible and affordable than ever before, and sonar system providers such as Reson, Sonardyne, Kongsberg and Northrop Grumman offer a range of products from the basic to the more complex that often require no specialist training.

> Although a range of initiatives and technologies are already in place on land and in surface vessels to monitor traffic entering ports, the subsurface threat is often not considered, explains Rob Balloch, strategic development and marketing director at sonar manufacturer Sonardyne: "The reality is that the maritime domain is the soft target and, although land-side security is often highly sophisticated, on the water side there's nothing, making it relatively easy for a diver or someone on a small inflatable to approach. A small bundle of C4 explosives detonated one metre below the waterline can have the same impact on a vessel's hull as a whole room full of explosives on the surface and, danger to life aside, you can imagine the impact on a port's operations if a vessel was sunk in the approach channel," he said.

> The underwater defence and security market has increased over the past few years, partly as a result of North America's Homeland Security initiative, but interest is also strong in Russia, the Middle East, and the Far East. Some large port and terminal groups

are also looking at ways to "keep security measures consistent across their assets", said John Fraser, business development manager at sonar manufacturer Reson.

a multihead sonar system for underwater security supplied by Kongsberg, as part of a comprehensive \$3.8M Homeland Security-funded underwater surveillance package.

Installed at various choke points in the port, the system uses built-in analytics to identify the characteristics of sonar contacts. In 2012, the port expanded the system to include a three-dimensional vessel-mounted sonar, operated by the local police department, to inspect the port's 10 piers, 80 berths, and other infrastructure.

"The portable sonar equipment allows operators to specifically examine submerged infrastructure to identify hazards and threats," said a spokesman for POLB, which is currently considering expanding its portable sonar capabilities to identify structural anomalies to maritime infrastructure after a significant event such as an earthquake.

The type and scale of underwater surveillance a port decides to deploy will depend on the coverage needed, for example, a large port might find it impractical to cover all areas and instead focus on key assets such as quay berths or a main access point such as the entrance channel. It may be that an important vessel is visiting the port on a specific day, requiring a rapidly deployable sonar from the berth to survey the quay wall and hull, such as the CodaOctopus Echoscope three-dimensional sonar.

"It is important to assess specific areas of vulnerability and determine the exact nature of the threat you want to search for," said Reson's Fraser. "Detecting small threats, such as individual divers, requires a high-frequency sonar system, such as our multibeam SeaBat 7128 sonar, able to provide a higher resolution of image, but lower frequency sonars have a longer range and can detect large objects several hundred metres away," he said.

Carrying out a comprehensive vulnerability, threat and risk assessment in concert with port stakeholders and partners could help ports determine the optimum system required. Often, an underwater solution will be integrated into a comprehensive commandand-control security solution to monitor the entire port facility.

An important factor to consider is a sonar's ability to assess the specific severity of threat posed by an object

An underwater threat may not be in the port, but still poses a direct threat... Sonardyne's sonar head at sea and ensure that port security staff are only alerted to its existence when absolutely necessary – after all, you don't want alarms triggered every time a dolphin or seal swims into your harbor.

Sonardyne's Balloch said this was a major factor that informed the development of underwater surveillance system, Sentinel: "We put a great deal of research into ensuring that the software can determine what a target is doing. For example, if it is stationary and a relatively long distance away it's unlikely to be a threat and therefore there's no need for the sonar to reveal it to the port client. However, if the target is moving towards a port asset in a threatening manner, for example, straight at it at a certain speed, then there's a stronger chance that it's a threat worth alerting security staff to."

An important factor to consider is a sonar's ability to assess the specific severity of threat posed by an object

These complex calculations are performed in real time inside the sonar's processor. When a target is detected it appears on an electronic map displayed on a PC located in the security team's control centre. As the target's threat level increases, it passes through various classifications from moderate, to substantial, to severe, to critical, at which point the port should take reactive measures.

"Once a potential threat is identified it's useful to have a 'slew-to-cue' thermal surveillance camera that can track onto the co-ordinates of the target you're tracking to double-check that you're not tracking a false positive [something that to all intents looks like a target, but isn't]," explained Balloch.

A Sentinel Intruder Detection Sonar was recently deployed at a second US port, which asked to remain anonymous, to monitor the length of its shipping channel and protect specific waterside assets from intrusion by divers, swimmers, or surface vehicles.

The system, which includes multiple Sentinel sonar arrays, pier-side and seafloor deployment frames, and control hardware, is designed to integrate with the port's other above- and below-the-waterline security technologies to create a complete situational awareness picture.

"The portability of the system was the first thing that impressed us," said a spokesman for the local maritime police. "A complete Sentinel can be packed into one of our patrol vehicles and dispatched at a moment's notice to any location within our jurisdiction. Typically, our officers are able to establish a wide-area, underwater security perimeter within 30 minutes of arriving on site."

Sentinel's ease-of-use was also impressive: "We are not highly skilled sonar technicians, but all the officers in the division can use it with confidence. Sentinel gives us a real advantage in our efforts to keep the port secure," he concluded. **RH**

Measuring mud

Port of Bristol's conservancy manager and port hydrographer, *Mark Burrows*, tells *P&H* about the UK port's difficult hydrographic requirements and the equipment it relies on to maintain depths

The Bristol Port Company (BPC) is one of the major ports in the UK responsible for handling a wide variety of cargoes that are essential to the country, from coal and biomass for power stations, to cars, jet fuel, and animal feeds. Cargo arrives in vessels of up to 130,000dwt and 14.5m draft and so it is vital that there is sufficient water for them to gain access to the port safely and efficiently to fit with global schedules.

The environment around the port creates certain challenges to operations and in the 20 years that it has been privatised, the company has invested in the best equipment to enable the port to perform at its best. The proposed construction of another terminal – Bristol Deepsea Container Terminal – further heightens the need to ensure that all the port's waterways remain navigable. The Bristol Channel and Severn Estuary combine to create an expanse of water that produces the third highest tidal range in the world at the port with currents that can reach 8kts in the Inner Estuary.

The spring tidal range of 14.6m presents specific challenges for the Marine Department, which is responsible for monitoring access to the docks at Avonmouth and Portbury.

We have to maintain a continuous watch on seabed mobility and the density of the mud flowing over it. This means there is always plenty of work for the port's 20m survey vessel *Isambard Brunel*, 7.9m Cheetah catamaran *Investigator*, and cutter suction dredgers *Malago* and *Evenlode*.

One of the unique features of the upper Severn Estuary is the enormous quantity of suspended

sediment in the dock approaches that can often result in vessels sailing through what is essentially liquid mud. This presents the hydrographic team with three challenges:

■ To ascertain the depth and contours of the seabed using classic survey techniques with modern equipment;

■ To determine the density of the suspended mud to ensure that the handling capabilities of the vessels entering the docks are not compromised, and;

■ To manoeuvre *Isambard Brunel* in the dynamic, acoustically harsh and confined entrances to the docks with specialist over-the-side survey equipment measuring through the water column.

The fluid mud that gathers at the entrances to the terminals can form a layer several metres thick. A safe navigable mud to water ratio of no more than 1.2 tonnes per cubic metre (200,000 parts per million) of water must be maintained at all times and so regular dredging operations and density surveys are vital. The density of the mud layers cannot be measured by conventional dual-frequency or multibeam echosounder surveying and it is for this reason that the Stema-Systems survey system was commissioned in 2002, and upgraded in 2011.

This system complements the onboard RTK (Real Time Kinematic) GPS and DGPS (Differential Global Positioning System), Atlas Deso and Reson NaviSound dual-frequency single-beam echo-sounders, Reson 8101 SeaBat multibeam echo-sounder, MAHRS and CMS25 motion sensors, both from Teledyne TSS, and a vessel-mounted Teledyne RDI Workhorse Mariner ADCP (Acoustic Doppler Current Profiler).

The Silas Acquisition program – part of the Stema-System's suite – gathers the sensor data. This program is interfaced with Reson's onboard PDS2000 navigation, acquisition, and processing software to give real-time data displays and track plots for the surveyors and coxswain.

The port has to survey the entrances about four times a month. It first does a single-beam profile (acoustic) survey of the seabed by running a dual frequency – 210 and 33 kHz – echo-sounder survey. We analyse this acoustic profile and then decide which locations to deploy Stema-System's DensiTune probe (see box). Once the two sets of data – probe profiles with the single-beam acoustic data – have been gathered, we integrate them to determine the density of the water.

This profile is then exported to the mapping software and subsequently plotted in a computeraided design program to produce charts for Port of Bristol's Haven Master, pilots, and dredge crews.

The data enables us to target any accumulations of mud and direct the dredgers to these sites. The equipment that we now use has greatly increased the amount of data gathered and improved our survey turn-around times. We can optimise the dredging programme and it gives us the ability to extend the tidal window and provide access for more deep-draft vessels. **PH**

The DensiTune reads the density of fluid mud

Density uncovered

Bristol Port Company (BPC) upgraded its Stema-Systems DensiTune silt density probe in December 2011 with the latest Ethernet version along with an Intelliwinch to "facilitate a more efficient survey operation," Stema-Systems' managing director Willem Fontein told *P&H*. The silt density probe is lowered through the winch from the deck at the rear side of the vessel. "The DensiTune measures the density of the fluid mud at a single position. This results in a density gradient at a single position in the harbor," explained Fontein, and around 100 measurements per day have been achieved. These profiles can then be used to construct a model of the sea or river bed.

Another option is to calibrate the acoustic response of a low frequency echosounder, Fontein explained to *P&H*. "This requires a specific echosounder, or modified standard echosounder, and a computer program that records the acoustic data, such as the Silas Aquisition software".

Several readings taken by the DensiTune are incorporated in the software, Fontein continued, and matched with the acoustic echosounder response, and in this way real-time nautical depth can be ascertained.

BPC's Mark Burrows told *P&H* that the company chose Stema's system because:

- It can easily interface with BPC's Reson PDS2000 survey software and sensors:
- A large amount of data can be acquired to aid the decision making processes;
- It can be easily imported into the port's Fledermaus visualisation software;
- It is constantly being improved and upgraded, and;
- The company provides excellent support and training.

More info: www.stema-systems.nl; www.bristolport.co.uk

Protecting remote anchorages

Vessels awaiting access to west African ports are increasingly vulnerable, reports **Dr Dave Sloggett**. He tells *P&H* about his to solution to curb piracy in the Gulf of Guinea

> he International Maritime Bureau (IMB) *Piracy Report* published on 22 October reveals that a combination of measures being taken off the coast of Somalia is putting downward pressure on levels of piracy.

> The actions taken by the international community have largely brought the problem of piracy in this area under control but each region is unique. While these tactics may have proved successful in Somalia, they should not simply be rolled out in other areas where piracy remains a problem. Each area where pirates are active will need its own tailored approach, taking into account local and regional factors.

> Calls from the commander of EU NAVFOR (European Union Naval Force) to avoid complacency are well founded. In October and early November a spike in activity could be seen off the coast of Indonesia; levels in piracy in the Gulf of Guinea are steadily rising; violence against seafarers is also on the increase. What was a problem unique to Nigeria has spread along the coast to Lomé (Togo), Cotonou (Benin), and Abidjan (Côte d'Ivoire).

> Like other criminals, pirates tend to inhabit those places where governance fails to deter their activities. Pirates operating in the Gulf of Guinea are adapting the techniques used by their Somali counterparts. For example, they are using mother ships to project power beyond territorial waters, extending their range of attacks by up to 130nm from the coast.

If pirates can adapt proven techniques to suit their local needs, could the local security forces do the same? Can local forces learn anything from the way EU NAVFOR, NATO, and other countries' navies have operated off the coast of Somalia? Can models developed by private security companies be adjusted in any way to suit local circumstances?

The answer is yes and no. With warships in short supply and defence budgets likely to see western navies further reduced in the coming years it is unlikely that significant naval resources will be diverted to the Gulf of Guinea.

It's not all bad news, as some progress is being made through mechanisms such as the Africa Partnership Station, a joint European Union, United States, and South American effort to grow indigenous capacity in states around the region. Countries such as Togo, Ghana, and Benin are not in the chaotic state of Somalia and the potential to develop indigenous security resources is an avenue worth considering in detail, but its scope is limited when considering the enormity of the issue.

To combat pirate activities in the Gulf of Guinea, regional navies need significant investment that their economies simply cannot afford. External help is essential if piracy is to be addressed. Many existing patrol boats are old, have huge maintenance problems, and rarely get to sea. Through donations and training missions conducted by visiting warships, some progress has been made.

Vessels waiting to enter ports in countries in the Gulf of Guinea often lie at anchor for several days as the ports are underequipped, making the ships vulnerable to attack. While vessel seizures have been an infrequent event, recent trends suggest that is changing. And pirates also do not always attack close to shore.

The pattern of attacks in the area in 2012 can be grouped into two groups: those anchored close to the edge of the territorial waters and those that occurred to vessels under way about 50-130nm out from the coast.

Dealing with the second scenario is more difficult. Either crews retire to a citadel (secure area) and await a response by local naval vessels or they deploy armed teams aboard to repel any attack. The Nigerian and Ghanaian navies are able to respond to attacks in their exclusive economic zone (EEZ) but responses can be patchy. To increase their capacity farther out, investment in airborne maritime patrol aircraft has to be a priority.

Protecting vessels at anchorages close to the shore requires a different approach. Deploying armed guards to a vessel is effective but can be expensive. A citadel into which the crew can safely retire and secure the ship, is another option. Both these security measures have been proven to work off the coast of Somalia but maritime traffic densities in and around the Gulf of Guinea are very different and new solutions are required. One idea is to marshal vessels into protected zones where a 'static' convoy system can be created by private security companies. They would throw a security blanket over the anchorage and guarantee safe passage into and out of the port facilities. A

main guard ship equipped with sensors to detect criminal activity would protect the merchant vessels at anchorage in the area. Quite often about 60 oil tankers are at anchor off of Lagos in an area of 100nm² – a very attractive target to a pirate.

The guard ship would maintain watch over all the vessels at anchor and dispatch armed guards to them when the time comes for them to move in and out of a port's facilities. How this solution would be funded would have to be worked out to ensure the cost of protecting merchant vessels is not prohibitive. But when compared with the losses that result from tankers hijacked for several days so oil can be bunkered on to other vessels, it might prove a cost-effective solution. Using private security companies would enable limited naval resources to focus on other issues such

as monitoring illegal fishing, which, left unchallenged, can create more reasons for people to turn to piracy. The patrol boats would also guard channels into which vessels approaching the secure anchorages would be funnelled. In time unmanned drones flown from the patrol boats will further develop the maritime picture and help target resources.

This layered defence would provide the Gulf of Guinea with a local solution adapted from the lessons learned from naval operations off Somalia. With the latest piracy trends showing worrying indicators, it is a solution that cannot come too soon. **PH**

Dr Dave Sloggett is a security expert and academic To view the IMB website or to request a copy of the report, go to: www.icc-ccs.org.uk

January/Feb

Making waves

ROPES aims to better understand the effects of wash on vessels. *Tony Slinn* investigates

Ships are getting bigger and so is the wash they create. And this wash can cause accidents. Bulker *Yusho Regulus* broke her moorings as a result of the wake of a passing ship at Port of Santos, Brazil, in September 2012. Not only was the bulker damaged but it also smashed two loaders and hit a pier.

Incidents such as these have prompted the Research on the Passing Effects on Ships (ROPES) project that is investigating the effect of wash created when ships move in and out of ports and its impact on moored vessels.

It has a budget of €1.5M (\$1.9M), of which €500,000 is from the Dutch government, and is funded by its participants. The international joint-industry research initiative will finish in November 2013. Its objective is to set new international guidelines for the design and construction of future ports and it

will do that via the following:

- A computer-based tool that predicts the effects of passing ships
- Results of 'reality check' measurement campaigns
- Assessment of new concepts to restrict moored vessel motions and mooring loads
- Results of the research to cover missing knowledgeBest practice.

"Wash can cause moored ships to come loose," ROPES chairman and senior ports specialist at international engineering consultancy company Bechtel, Marco Pluijm, told *P&H*. "It also affects the safe loading and unloading of vessels, leading to potentially dangerous situations, when the transfer of oil, gas or other hazardous materials is involved.

"In recent years, the size, speed and power of ships have increased dramatically, thus increasing the size of their wash, and that can result in safety issues, environmental damage and financial loss," Pluijm continued. Research has been done at various locations, he said, but never before ranging from smallscale testing via mathematical modelling to real-time scale modelling. "Little research had been done on this subject, but our project is identifying the full effect of a passing ship's wash and what can be done in terms of port design to mitigate it." Research began in 2010 and is being conducted in multiple phases including extensive computer simulations, scale-model testing, and now full-scale testing in the Port of Rotterdam. Taking part are 26 members (*see box*) including port authorities.

While most of the research and testing has been carried out in the Netherlands, some of it has also occurred in the USA and in Belgium. The work has been concentrated in Europe, however, largely because the port authorities taking part are based in the Netherlands and Belgium.

"They recognised that they were all facing the same issues and decided to bundle their knowledge and do something about it," Pluijm said, adding that it is a global issue, which will become increasingly common as ship sizes increase.

The results will only be available to participants for three years to 2016, providing project members with a competitive advantage. However, "the project is still open to new members, they can join now and receive full benefits," said project member Marin's head of trials and monitoring Hen van den Boom. He added that some results will be placed in the public domain providing all the partners agree.

The Dutch research institute, Deltares, is home to ROPES' scale-model test tank in which a moored Panamax vessel model of about 4,500teu is subjected to the wash of a passing post-Panamax vessel. It takes into account 'surge and sway' as well as other effects at a scale of 1:100. The model vessel is monitored using multiple sensors and a bank of computers.

Like Santos, Rotterdam has had its share of serious mooring incidents, not least that in 2007 when a tanker broke free and caused infrastructure and oil spill damage. This triggered the Royal Boatman's Association Eendracht (KRVE) to instigate its own research and then to become a major player within ROPES. The port, along with one of its terminal operators, ECT, is also involved in the project. The ECT container terminal is located at the Amazon harbor and has embarked on a project to build a new quay 50m back from the existing quay.

"It's critical because of the Amazon harbor's orientation and design," Port of Rotterdam's nautical development director Captain Ben van Scherpenzeel told *P&H*. "The harbor is relatively narrow and is situated perpendicular to the entrance channel. Because of the harbor's geometry, ships have to make a sharp turn to enter. Moreover, ships must approach the harbor at low speed, making the effect of local currents relatively large."

He explained: "The Beerkanaal entrance channel, on the north side, is connected to Nieuwe Waterweg main channel and on the south side connected to the Hartelkanaal channel. These channels are connected to, respectively, the River Nieuwe Maas and River Oude Maas, which are in open connection with each other. Due to this situation, the currents in the Amazon harbor area are driven by tidal influences and the river discharge that are both coming from two directions."

Pulling together

There are 26 organisations involved in ROPES, including associations, government agencies, port authorities, terminal owners and operators, consultants, hardware suppliers and marine research institutes:

- Associations and government agencies Dutch Pilots Association (NLC/Loodswezen), Royal Boatman Association Eendracht (KRVE) and Dutch transport and infrastructure ministry Rijkswaterstaat
- Port authorities Rotterdam, Antwerp and Amsterdam
- Research, consultancy and engineering contracting members – Arcadis, Bechtel, Deltares, MARIN, Moffatt & Nichol, OMC International, Pinkster Marine Hydrodynamics, Svašek Hydraulics, Worley Parsons and Waterbouw Lab
- Suppliers and hardware Cavotec, ExxonMobil, Lankhorst, Mampaey, Siport and Smit International
- Terminal owners and operators ECT
- Universities Ghent, the National University of Singapore and TU Delft

Deltares scale-model test centre where the effects of wash are tested on a moored 4,500teu vessel

Scherpenzeel said that, for safety and security reasons, Rotterdam Port Authority places restrictions on large ships entering the harbor at specified tide periods of three hours per tide cycle.

In order to help pilots manoeuvre ships into the harbor "real-time current information is of importance," he said.

"Moreover, the current information may lead to enlarging the restricting tide period. This could increase the number of vessels that can enter the harbor, which is of importance for the economy."

Rotterdam's dredging and hydrographic department asked specialist Aqua Vision to examine the best location for a real-time current measurement station and they chose the corner of the main channel and Amazon harbor.

Port of Rotterdam's researcher Herm Jan van Wijhe concluded: "It's extremely important for us to be able to look ahead and judge any problems. We're very happy to be involved in ROPES and look forward to the results" **PH**

Ports & Harbors | Janu

More info: www.bechtel.com/safeports

Ports tool up for LNG bunkers

Major ports are racing to create bunkering facilities for cleaner fuels such as liquefied natural gas (LNG) as deadlines for stricter controls on ship emissions in Europe and North America draw closer.

Rotterdam and the main Swedish Port of Gothenburg have announced they will co-operate on LNG bunkering, but the deadline is also commanding interest in ports far from the emission control areas. For example, in Singapore, which leads the world in sales of bunker fuel. The alliance between Rotterdam and Gothenburg, announced in October, is aimed at speeding up the introduction of LNG as a maritime fuel.

Both are located in European emissions control areas (ECAs), where strict rules governing sulphur and particulate matter in maritime fuel are due to be introduced by 2015. The two ports have signed a memorandum of understanding to ensure they have in place a suitable infrastructure for LNG bunkering when the new

regulations come into force. "We are extremely pleased that

the largest port in Europe has joined forces with us in this important issue," said Magnus Kårestedt, CEO of Port of Gothenburg. "Working together, we will have a very strong offering to the market."

The necessary infrastructure needs to be put in place quickly, either by ordering LNG bunker vessels or using quayside tanks, and training and safety regulations need to be drawn up for handling LNG. The two ports also intend to promote client awareness of LNG as a maritime fuel to ensure an adequate return for their investment.

Elsewhere, in the Baltic, representatives of eight ports signed a partnership agreement in June to develop an LNG bunkering infrastructure in the region.

Meanwhile, in southeast Asia, Singapore's Maritime and Port Authority (MPA) assistant chief executive of operations, Captain M Segar, announced at the citystate's International Bunkering Conference in October that the port is planning to offer LNG bunkering by late 2014.

This follows a joint industry

project in collaboration with the DNV Clean Technology Centre and 21 other industry players that has made recommendations to the MPA. Capt Segar said there was growing interest in LNG bunkering in Singapore, especially since the city-state has the world's biggest bunkering port by sales volume.

By 1Q/2013, the MPA is expected to finalise licencing requirements for bunker suppliers and vessel operators to supply LNG bunkers. Singapore is building an LNG receiving terminal at Jurong Island that will also be ready in 2013.

LNG-fuelled vessels is one project being developed as part of WPCI. Antwerp Port Authority is the project leader, with Oslo and Los Angeles participating ports. *More info: http://wpci.iaphworldports.org*

WPC

Stuttgart joins hinterland website

options to the hinterland.

connection with Rotterdam. This free service

offers shippers and freight forwarders route

by inland shipping or rail on the basis of

website also helps them compare the

performance of different terminals.

objective criteria such as turnaround time,

service options, price, distance, sustainability,

frequency, and Customs and IT services. The

Inlandlinks aims to extend its intermodal

Logistics providers can map out their routes

Stuttgart Container Terminal (SCT) in Baden-Württemberg is the first German hinterland terminal to join the intermodal quality mark 'InlandLinks'. The recent addition was announced by a spokesman for the port of Rotterdam, which began the InlandLinks initiative and is well connected to Stuttgart by frequent barge and rail services.

Inlandlinks.eu is an independent web platform listing almost every Dutch inland terminal offering an inland shipping and/or rail

Notable numbers

students participating in Genoa's Citizens of the Port project service beyond the Netherlands to Belgium and Germany. The website also

features the Belgian container terminal at Liege. Its primary aim is to promote intermodal container transport by train and barge, which is expected to triple in the next 25 years.

WPCI has an intermodal transport project currently being championed by the Port of Amsterdam.

More info: www.inlandlinks.eu

30

Two of Seattle's three cruise terminals offer ship-to-shore power

ESI works with Green Award

The Environmental Ship Index (ESI), part of WPCI, and Green Award Foundation are joining forces. In the future, the foundation will include the results of the ESI in its own evaluation and in return will check the emissions of Green Award ships on behalf of the ESI during its annual vessel audit.

The ESI – developed by the port authorities of Amsterdam and Rotterdam and in operation since January 2011 – is a certificate issued under IAPH's World Ports Climate Initiative at the request of the ship. The index shows how a vessel performs environmentally with regard to emissions of air pollution (NO_x and SO_x) and CO₂. As of October 2012, 1,442 ships were registered and 19 ports and other organisations worldwide now provide incentives.

The Green Award Foundation is an independent foundation established in Rotterdam in 1994 that issues certificates to ships that have made additional investments in the quality of ship and crew. The Green Award was originally intended for tankers, but bulk carriers and – more recently – LNG and inland vessels now can also be certified. Around 250 seagoing ships and 350 inland vessels have acquired the Green Award certificate. Thirty ports and other institutions support the certificate with incentives.

The introduction of cleaner vessels and tough emissions legislation has already had concrete results in reducing air pollution levels in US ports. In October, a new survey of air emissions in Washington state's Puget Sound showed the most dangerous type of pollution associated with the maritime industry – tiny particles found in diesel exhaust – had declined 16% overall since 2005.

Diesel emissions from oceangoing ships – far and away the dirtiest single sector of the shipping industry, accounting for more than 60% of the marine industry's air pollution – are down 16%. The toxic exhaust from heavy trucks is down by more than 50%, while exhaust from trains serving the ports is down by a quarter.

Tougher federal standards on fuel and engine types – combined with incentive programmes adopted by agencies such as the Port of Seattle – are dramatically reducing air pollution across the region's maritime industry.

The Port of Seattle has spent \$5.7M to reduce air emissions. The port

WPCI

and other agencies offered cash incentives for truckers to trade in old vehicles for cleaner ones. Both

Seattle and and the port of Tacoma have subsidised fuel costs for container operators that voluntarily use ship fuels that are lower in sulphur content than what is stipulated by the US Environmental Protection Agency.

Both the EPA and the US state have offered grants to tug companies that retrofit their vessels with cleaner-burning engines. And two of Seattle's three cruise terminals now allow ships to plug into the electric grid rather than use auxiliary engines while at berth. *More info: http://esi.wpci.nl*

Offshore companies must prove they can compensate

The European Parliament has taken the first steps towards the creation of a draft law to ensure the European Union is as well prepared as possible for an oil spill like the one involving the Deepwater Horizon drilling platform in the Gulf of Mexico in 2010.

The parliament's energy committee approved a draft law on 9 October that would require offshore oil and gas firms to prove they have the resources to make good any environmental damage they may cause before they can be

\$20to\$30Bn estimate of damage caused by 'Sandy'

regarded as eligible for a licence to drill off Europe's coasts. It would also require companies to submit major hazard studies and emergency response plans as a condition of being given permission to drill.

The European Parliament said the new law would replace the current "patchwork of laws and practices" governing offshore drilling in the European Union. MEP Ivo Belet, who has been involved in formulating the draft law, said a solid legal framework was urgently needed at a time when many EU member states were looking to go into offshore drilling without having much experience in offshore oil and gas operations.

The energy committee vote has given the European Parliament a mandate to open negotiations with the European Council and the European Commission on the proposed text. According to a statement issued by the European Parliament, informal discussions about the draft law were due to begin in late 2012.

5.57%

crease in Los ngeles box olumes in eptember 2012

Register for free maritime news today!

IHS Fairplay Sea-web[™] Insight

In-depth analysis and daily breaking news service for decision-makers and stakeholders across the maritime sector

Sea-web Insight, a brand-new service from IHS Fairplay, brings you daily breaking maritime news and insight for profitable, safe and efficient shipping. It covers a full spectrum of shipping and port-related issues appealing to the entire maritime community:

- Shipping markets
- Trade and commerce
- Shipping logistics
- Supply chain security
- Technological solutions to commercial problems
- Comprehensive data on new ship builds over 100 GT
- Maritime safety and regulation
- Maritime civil engineering and dredging
- Best practice in port operations

Visit www.sea-web.com for more information and to register for free maritime news today!"

The most complete maritime news source available. IHS Fairplay Sea-web[™] Insight.

The Costa Concordia tragedy has resulted in earlier passenger safety drills

IMO agrees on muster update

IMO's Maritime Safety Committee (MSC) has agreed that rules requiring passenger safety drills prior to, or immediately upon, departure should be mandatory, the IMO said in a statement on 3 November. During its 91st session in London in November the MSC chairman took delegates' views on whether regulatory amendments should be pushed through before the full accident investigation of the fatal Costa Concordia grounding report is available possibly sometime in this year.

The committee approved draft amendments to chapter III (Lifesaving appliances and arrangements) of SOLAS to require musters of newly embarked passengers prior to or immediately upon departure, instead of within 24 hours, as per the current regulations. The draft amendments will now be under consideration with a view to adoption at MSC 92 in June 2013 and could enter force at the end of 2014.

Opinions during the meeting were divided as to whether the

IMO should wait for the full report. Italy had only preliminary findings to offer the MSC by way of an accident investigation report. At the centre of the discussion was Working Paper 12 (WP 12) submitted by SG Koji Sekimizu. Delegates were asked to decide if its three suggested operational amendments should be made mandatory. The first amendment being the muster requirement; the second limits access to the bridge during specific periods of the ship's operation; and the third requires passenger ship companies and operators to specify the conditions under which a master may deviate from the voyage plan.

It was the view of several delegations that the European Commission supports immediate amendments. P&H was informed that the commission's view is based on there already being "a lot of information available" that could be acted upon.

China disagreed, as did the Bahamas, whose delegation warned: "Italy's paper raises so

many potential issues that attempting to deal with them all would be doomed to failure. This is preliminary information..."

Similarly, the International Chamber of Shipping said a "strong, compelling need should be demonstrated ... before the introduction of new requirements, amendments, or changes to existing instruments are expedited".

The Netherlands agreed that regulations "should not be adopted that lack the proper justification". Argentina urged the committee to go "step by step and wait for more detailed findings before proceeding", and the United Kingdom said: "Substantial technical information needs to be considered in conjunction with the accident investigation report before considering response measures that are appropriate and proportionate for industry."

The United Kingdom issued a long statement regarding three papers it has put forward for consideration by the committee but not, at this time, for action. The papers set out concerns about current technical standards on passenger ship safety. The Cook Islands supported the UK's technical submissions and said the committee was setting "a most unfortunate precedent" by taking action before having access to the full accident investigation report.

The MSC also agreed a revised circular on recommended operational measures prior to the adoption of any mandatory measures following the analysis of the official marine accident investigation report into the incident. These include: additional guidance on common elements to be included in passenger muster and emergency instructions, and a recommendation that the nationality of each person onboard is recorded.

Verhoeven: ports to ships

ESPO secretary general Patrick Verhoeven has decided to leave the organisation, said ESPO in a press release on 12 November. Verhoeven will take up the post of SG at the European Community Shipowners' Associations (ECSA) where he will succeed Alfons Guinier on his retirement next year.

"It is with much regret that I have to announce this news," said ESPO president Santiago Garcia-Milà. "Patrick will, however, not be leaving us immediately. It has been agreed with ECSA that he will not formally take up his new position before the summer, which gives us time to find a successor and prepare the transition. It also allows us to say farewell and thank Patrick for what will be almost 13 years of service during the General Assembly and ESPO Conference in Varna at the end of May."

Verhoeven said: "Leaving ESPO was not an easy decision as I am leaving behind a wonderful organisation with close friends, both in the membership and the secretariat. But at the same time, the opportunity to serve the shipowner community provides the right kind of challenge at this stage of my career. The change comes after working nearly 20 years for the European ports business, both at ESPO and at FEPORT before."

Patrick Verhoeven is leavin ESPO after nearly 13 years with the organisation

Ports & Harbors | January/February 2013 33

Scorpio eco ships prove their worth

Scorpio Tankers has proved 'eco ships' can save money. During 3Q/2012 the company reduced its fuel consumption by 28% in ballast and 30.5% laden, using its recently delivered 52,000dwt, Hyundai Mipo-built, medium-range (MR) product tankers.

Figures from Scorpio reveal the 2012-built *STI Amber* MR product tanker uses 18 tonnes of fuel a day in ballast and 20.5 tonnes a day when laden. Compare this with the non-eco *STI Coral*, which the company sold in August, which uses 25 tonnes of fuel a day in ballast and 29.5 tonnes/day laden. This equates to daily savings of around \$4,500 per MR tanker.

Scorpio president Robert Bugbee predicts that while eco designs in the product-tanker sector debuted in the mediumrange class, the concept will be embraced in long-range 1 (LR1, 80,000 to 159,999dwt) and longrange 2 (LR2, 160,000 to 319,999dwt) classes as well. "The first place people order is that which has the highest trading frequency and the greatest utility

in the diversification of cargoes and routes, not that which shows the highest beta, like the LR2s," he said on a conference call in November. "Ultimately, you will get orders for [eco] LR1s and LR2s," affirmed Bugbee. Scorpio COO Cameron Mackey added that it is "widely known that Teekay has been doing work on a fuelefficient LR2 design".

"Banks are way ahead of the general market in their understanding of this fuelefficiency effect," said Bugbee. Scorpio's lenders have been receiving internal reports on the eco MR performance prior to public disclosure. "They've also had the benefit of seeing how Maersk's [eco] container vessels performed three months before our vessels hit the water," he noted.

"The clear signal in our lending group is that it's much more preferential for them to have the certainty of a newbuild than the uncertainty of an olderdesign vessel."

Although Scorpio is not currently engaged in lender negotiations, Bugbee believes banks will offer more favourable terms for eco ships, including better margins, tenors, and advance rates.

For analysts who hadn't anticipated the scale of the fuel savings, the new focus is on how much upside owners like Scorpio can capture.

"There's very little that an owner of existing tonnage can do to upgrade their vessels," Mackey explained on the conference call.

He said the primary option for an owner of existing tonnage is to install a 'shroud' around the propeller, costing \$300,000 to \$750,000 and providing fuel savings of only 3% to 5%. Obtaining the double-digit savings celebrated by Scorpio requires a custom-built design incorporating a refined hull form, engine technology advances, and a larger propeller. "There's nothing particularly mysterious about any of these elements," Mackey said.

"What's new in shipping is that it was not until recently that there were incentives for both the people with the capital choice and the manufacturer to upgrade the design."

Making the link between throughput and employment

Port activity can have a significant impact on regional employment, according to a recent report by the Organisation for Co-operation and Economic Development (OECD).

The study, carried out between 2000 and 2006 and published in July this year, examined a sample of 560 regions in 10 European countries, 100 of them home to one port or more.

It found that an increase of 1M tonnes of port throughput is on average associated with a corresponding increase in employment in the port region of 0.0003%. That means a region with 1M employees would experience an increase in employment of 300 people, with the impact on industry employment being slightly larger than that on service employment.

The report found that liquid bulk had lower employment impacts than did other cargo categories such as dry bulk, containers and general cargo, perhaps because fewer people are employed in the sector, with loading and unloading of bulk carried out mostly using pipelines. If liquid bulk is not included in port throughput numbers, the employment impact in the region doubles, so an increase of 1M tonnes port throughput is associated with a regional employment increase of 600 people.

It found that private ports have the greatest employment impacts in regions, with 1,000 jobs created per 1M additional

tonnes of port throughput. That compares with 550 jobs created per 1,000 at European ports run using the 'Latin' governance model and just 170 for 'Hanseatic' ports. This can, in part, be explained by the fact that some private ports are located close to major cities or are functional to local industries, said the report.

To qualify for inclusion in the study, ports had to have registered an average value of at least 3M tonnes of total throughput or 1M units of passenger traffic in the last five years. The smallest ports, which have little influence on the regional economy but are used for specific purposes, such as the small island ports, were excluded.

Notable numbers

ships registered with ESI 1,000

IAPH delegate are expected in LA in May

Quite simply the best portfolio of magazines in the global maritime industry

Find out more ihs.com/fairplaymagazines

IAPH INFO

Let LA entertain you!

Discover the magic of LA during the IAPH World Ports Conference

The city of Los Angeles is a thriving mix of culture, entertainment, and innovation. Among its varied districts where people live, work and play, every pocket has its own collection of treasures and each has a story to tell.

At the heart of the city lies the vibrant new arts and culture district – LA Live – where as many as 1,000 participants will gather from 6–10 May for the 28th IAPH Worlds Ports Conference. The biennial event will this year take place at the JW Marriott, just footsteps away from the Nokia Theatre, the Staples Center, and the Grammy Museum. As a hub for clubs and restaurants, the location is a kaleidoscope of tastes, sights, and sounds that are uniquely LA.

A quick taxi ride and you will find yourself in the greater downtown area, another nucleus of restaurants and attractions, including the renowned Walt Disney Concert Hall, the Museum of Contemporary Art, and the Japanese American National Museum. Coinciding with the IAPH conference is the Downtown Art Walk, a celebration of galleries, artists, photography, restaurants, pubs and shops inviting art lovers to discover the soul of the city on the second Thursday of every month.

Downtown destinations that showcase LA's roots and

architecture include Olvera Street (the birthplace of Los Angeles), Little Tokyo, and Chinatown. As the city opens up, so do dining and nightlife offerings from the hip to the historic.

North of downtown is the Hollywood area, with iconic haunts that include Grauman's Chinese Theatre, the Hollywood Walk of Fame, the Hollywood Wax Museum, the eclectic Melrose Boulevard shopping district, the Hollywood Bowl, Griffith Park Observatory, Universal Studios, and Universal CityWalk.

Flanking Los Angeles are world-famous Beverly Hills, known for its upscale shopping and glamorous shoppers, and Santa Monica, known for its wide beaches and quintessential California lifestyle. Each is a cultural centre with its own arts heritage, nightlife, boutiques, and fine cuisine.

The greater LA area boasts more cultural attractions than any other city in America. World-class museums include the Natural History Museum and the California Science Center at Exposition Park, now home to the space shuttle Endeavor, the Los Angeles County Museum of Art, the La Brea Tar Pits and the Petersen Automotive Museum along Wilshire Boulevard's Miracle Mile, the J Paul Getty

Find your own LA

- The treasure hunt begins:
- Tourist board www.discoverlosangeles.com
- Down Town Art Walk http://downtownartwalk.org/
- Olvera Street www.ci.la.ca.us/elp
- Beverly Hills www.beverlyhills.org

Museum, with campuses in Brentwood and Malibu, the Norton Simon Museum and the Pacific Asia Museum in Pasadena, and the Huntington Library in San Marino. Programmes for quests

accompanying World Ports Conference delegates include tours of downtown Los Angeles, Hollywood, the Getty Museum, and Exposition Park. All participants are invited to tour the Port of Los Angeles on the final day.

As the entertainment capital of the world, the city pulsates yearround with festivals, concerts, exhibitions, and special events. *More info: www.iaph2013.org*

Dates for your diary

A selection of forthcoming maritime courses and conferences

January 2013

- 21-26: PIANC RecCom Marina Designer Training Program Rome, Italy www.pianc.org/reccomMDTP.php
- **24-25:** Shifting International Trade Routes Tampa, USA *www.aapa-ports.org*
- **29-30:** Managing Environmental Performance for Ports and Terminals Seminar – London, UK *www.lloydsmaritimeacademy.com*
- **30–31:** 7th Philippines Ports & Shipping Manila, The Philippines www.transportevents.com

February

- From 12: Fundamentals of Container Shipping distance learning www.lloydsmaritimeacademy.com
- **27-28:** 7th Indian Ocean Ports and Logistics 2013 Mozambique *www.transportevents.com*

March

- **3-6:** TPM Conference Long Beach, USA *www.jocevents.com/joc-events/*
- **4-15:** Port Security Seminar Antwerp, Belgium *www.portofantwerp.com/apec/*
- **12-14:** TOC Container Supply Chain: Asia Hong Kong *www.tocevents-asia.com*
- **18-19:** AAPA Spring Conference Washington DC, USA *www.aapa-ports.org*
- **18–20:** IAPH Asia/Oceania Regional Meeting Abu Dhabi, UAE www.iaphworldports.org

May

6-10: 28th IAPH World Ports Conference – Los Angeles, USA www.iaph2013.org

Asia/Oceania Regional Meeting in Abu Dhabi

The Asia/Oceania Regional Meeting will be held on 18 March in conjunction with World Ports and Trade Summit (WPTS) 2013. The summit is being hosted by Abu Dhabi Ports Company (ADPC), which will also be hosting a lunch for association members on the day of the meeting.

The two-day WPTS starts on 19 March, enabling those attending IAPH to benefit from joining the conference sessions following the meeting. A tour of Khalifa Port is also planned for IAPH members. Those who visit the new offshore port will have the chance to see the semi-automated container yard, which is the first of its kind in the Middle East.

More info: www.worldportsandtrade.com

Garcia Milá: reinforce links and co-ordination between IAPH and ESPO

IAPH VP is new chairman of ESPO

Santiago Garcia Milá, deputy MD of Barcelona's port authority, tells *P&H* about his new European ports appointment

I am very honoured to be elected as chairman of the European Sea Ports Organisation (ESPO). This position is a considerable responsibility, given the important legacy that my predecessors built up over the past

20 years. This responsibility I will share with Eamonn O'Reilly, VP of the Port of Dublin, and Julian Skelnik from the Port of Gdansk, who were also elected.

l am confident that the coincidence of this presidency and my present responsibility at IAPH will reinforce the links and co-ordination between these two port organisations.

ESPO was founded in 1993. It represents the port authorities, port associations, and port administrations of the seaports of the member states of the European Union and Norway. It has also observer members in several neighbouring countries to the EU.

ESPO ensures that seaports have a clear voice in the European Union. The organisation promotes the common interests of its members throughout Europe and is engaged in dialogue with European stakeholders in the port and maritime sector.

In May 2012 IAPH and ESPO signed an MoU to reinforce co-operation between the two organisations. *More info: www.espo.be*

Membership notes

The IAPH Secretariat is pleased to announce that the following has joined the association

Associate member

UNESCO-IHE Address

Telephone Fax Email Website Representative Nature of business activities

P.O. Box 3015, 2601 DA Delft, Netherlands +31-15-215-1701 +31-15-212-2921 a.szollosi-nagy@unesco-ihe.org www.unesco-ihe.org Prof. András Szöllösi-Nagy, rector Education research and capacity development

IAPH invests in IMO dredging guidelines

In early 2012 IMO released a guidance document, Waste Assessment Guidelines Training Set Extension for the Application of Lowtechnology Techniques for Assessing Dredged Material. This is intended to be used as a beta-test by ports and regulatory authorities operating in low-tech environments.

The document provides information on low-cost sampling, including the inventive use of a cola bottle, testing, information gathering and documenting, low-cost monitoring, and feedback surveys to help improve decision-making.

IAPH made a financial contribution to this document's development as well as providing expert advice from the viewpoint of a port manager. You are encouraged to use it and give feedback on its usefulness. *Full report is available at: http:// www.imo.org/blast/blastDataHelper. asp?data_id=30961%20* &filename=WAGTE-Vers1.0.pdf

We value your opinions

Do you have strong views about any of the articles in *Ports & Harbors*? Are there other industry issues that you would like to tell us about? **We would be pleased to hear from you so email your views to ph@iaphworldports.org** The Port of Los Angeles is honored to welcome ports and maritime service providers from around the globe to the IAPH 28th World Ports Conference

May 6 - 10, 2013 JW Marriott at LA LIVE Los Angeles, California USA

With a special keynote address from Captain Richard Phillips Captain of the Maersk Alabama, hijacked by Somali pirates in 2009

Registration is now open at www.iaph2013.org ponsorship and Exhibit Booth Opportunities Available Contact information@iaph2013.org

> THE PORT OF LOS ANGELES www.portoflosangeles.org

LAST WORD

Walvis Bay has the qualities necessary to facilitate this transhipment business

Three tiers for SUCCESS

IAPH member Namport forges ahead with its plans for sustainable growth. Its CEO, **Bisey Uirab**, explains the port's approach

The Namibian Ports Authority (Namport) is entering the third stage of its three-part strategy to ensure long-term, sustainable growth for the Port of Walvis Bay. Firstly it had to establish itself as a transhipment hub for major shipping lines in order to drive down freight rates to Walvis Bay. The world economic crisis has led to a shift in shipping lines favouring the 'hub and spoke' model of port logistics, where larger hub ports serve the smaller regional feeder ports.

Walvis Bay has the qualities necessary to facilitate this transhipment business. Its deep draft of 14m, efficient operations, and competitive tariffs have led lines like Maersk and CMA CGM to bring their business to the port over other hub ports along the west coast of Africa.

The port then had to focus on creating sustainable volumes of cargo. We identified the high growth markets of Zambia, Democratic Republic of Congo (DRC), Botswana, Zimbabwe, and Malawi and then positioned Walvis Bay as the preferred access point to these markets. Namport, through its support of the Walvis Bay Corridor Group, has established offices in Johannesburg , South Africa, Lusaka, Zambia, Lubumbashi, DRC, and Sao Paulo, Brazil. These markets are better served by the Port of Walvis Bay due to efficient port services, faster access, secure and reliable overland transport infrastructure, and efficient cross-border facilitation.

The third and final phase involves changing cargo flows from the traditional routes towards the west coast of Africa in order to address the congestion challenges of regional ports.

When the time comes Namport will be ready to accommodate this cargo and is currently out on tender for the construction of a new container terminal which will have a capacity of in excess of 1M teu. **NH**

AL-NAS

Strategic Partner

19-20 March 2013

St Regis Saadiyat Island Resort, Abu Dhabi

Hear from the industry's most influential minds and share knowledge with other attendees from around the world

Organised by

Supported by

Follow us!

Join our group on Linkedin and receive not only the latest speaker announcements and industry news, but start meeting other attendees before you join us at the Summit. Join us as we look towards 2013 and a new chapter in the history of the Summit as we roll out a conference led 2 days of keynote session, awards, premium exhibition, port visits and networking.

www.worldportsandtrade.com

The port-centric container supply chain event

12-14 March 2013 HKCEC, Hong Kong

Productivity & Reliability: Asia's New Battleground for **Ports and Liner Shipping**

Key conference themes

- International Trade
- **Container Shipping**
- Supply Chain & Logistics
- Ports & Intermodal

Book before 25th January and save \$150!

Speakers include:

Brian Noe Kristensen Maersk Line

Troy Shortell HAVI Logistics Henriette Hallberg Thygesen DAMCO

Mark Holloway

Diageo

Stanley Smulders MOL Liner

www.tocevents-asia.com

Partners BULK MATERIALS

Key Media

SupplyChainAsia

CONTAINERISATION

WorldCargo

Port Tour Sponsors

Sponsor

