



# PORTS & HARBORS

Official Journal of the International Association of Ports and Harbors

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US gate appointments

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Five challenges for ports

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All the action from the  
2015 conference

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# PORTS & HARBORS

Official Journal of the International Association of Ports and Harbors

## PORTS & HARBORS

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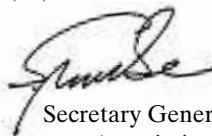
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# Thinking bigger

Ports need to invest in infrastructure and  
equipment to accommodate bigger ships



**Susumu Naruse**

Secretary General – The International  
Association of Ports and Harbors



The 29th IAPH World Ports Conference in Hamburg, Germany, was a great success. More than 900 people from the global port industry gathered in the historical port city to share the latest information and debate views and opinions with their counterparts from the other parts of the world.

The Conference covered a variety of themes but it was under the one unique concept of “smartPORT”. This concept means to manage overall functions of ports including business transactions, security and safety challenges, environment considerations, and other important issues, all in an effective way with advanced IT systems. To survive in the fiercely competitive port industry, ports need to be an intelligent entity combining all its major functions efficiently with the e-system.

One of the topics that impressed me most was discussions on mega container ships. Some speakers pointed out the fact that while ships are getting bigger, the percentage of cost savings per container transport associated with ship size is decreasing. For example, a cost savings ratio per container is estimated to be 10% when comparing 8,000–14,000 teu ships but that becomes just 5% for 14,000–18,000 teu ships. Since ports need to invest a lot of resources in infrastructure and equipment to accommodate bigger mega ships, theoretically there should be an equilibrium point on the size of container ship from the holistic economic viewpoint. But in reality, shipping companies are ever increasing the ship size to survive in the industry,

“Shipping companies  
are ever increasing the  
ship size to survive”

which puts a lot of pressure on the port industry.

At the Conference, members unanimously elected Santiago Garcia-Milà, deputy executive director, Port of Barcelona, as president for the 2015/2017 term, along with three vice-presidents representing three separate regions. I hope that the new IAPH Officers will show their strong leadership in the major issues including the organisational reform of IAPH.

Having created great outcomes such as technical reports, databases, and guidelines during the last term, the IAPH technical committees are now starting their new assignments based on the work plans approved in Hamburg. As I think the technical committees are the back bone of the association, I'd like more IAPH members to consider joining our technical committees and WPCI working groups, and to share their expertise and experience with other members to obtain the very best results over the next two years. PH

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IAPH

# A big challenge

Your new President of IAPH, **Santiago Garcia-Milà** looks forward to the challenging period that lies ahead

## Dear friends and colleagues,

I feel very proud to have been elected as IAPH President. This is a great honour and also a huge responsibility given the important legacy that my predecessors built up over the past years. I will share this responsibility with the Vice-Presidents recently elected. I would like to express my gratitude to the Port of Barcelona, for supporting my involvement in IAPH during all these years and to all delegates that contributed to my election.

I would like to mention especially Susumu Naruse, IAPH Secretary General, and his team, as well as Fer van de Laar, managing director of the IAPH Europe office, for their activity during the last year and I would like to highlight that I count on them for the coming years.

I would like to pay particular tribute to Grant Gilfillan, my

immediate predecessor. Grant, you have efficiently led our organization during the past two years. Under your Presidency we were able to undertake a significant work to prepare the IAPH for its future that resulted in the proposal of a new IAPH constitution that has been presented during this Conference. It has been a long process initiated during the Los Angeles conference in May 2013 and, under your guidance and leadership, the Strategic Policy Group has managed to reach a consensus that resulted in this proposal of a new Constitution. During your Presidency, we also enjoyed a well-attended and fruitful conference in Sydney that reconfirmed that conferences are a key issue for our organization.

Grant, on behalf of all IAPH members and the Secretariat, I

warmly thank you for all your efforts. I know you will remain an active member and I look forward to continuing our cooperation.

Ladies and gentlemen, I fully realize that the start of my mandate coincides with a challenging period for IAPH, inside and outside IAPH.

The most challenging job inside our organization is to expand its role and create more value to you, its members. IAPH will need the support of all of you for achieving this. We count on the great job that Committees are undertaking and the involvement of their chairs and members. Your ambitious Work Plans have been approved during this Conference and now you have 2 years ahead to make the homework. You have all my support and confidence.

We also count on the Secretariat

that, under Susumu Naruse, will continue to do an excellent job and be as responsive and helpful as it has always been. The Secretariat is a key instrument for IAPH and its support is essential for achieving our objectives.

Finally, I would like to highlight that we start now the process of approval (or not) of the new Constitution. I am convinced that it will not necessarily guarantee the future of the IAPH, but it will offer the Association a better position from which to do more and to do different things. In the event that the new Constitution is finally approved, the coming years will represent a transition period when changes will be progressively implemented in order to give the organization a relevant role in global maritime and transport affairs. This is a common objective of all of us and therefore the effort of the whole organization will be needed.

Regarding the challenges outside IAPH, I do not need to tell you the reality that the port sector is facing. The increase of the vessels' capacity and new capacity ordered, reduction of numbers of scales, relevance of environmental considerations, freight volatility, ..., among other factors, will condition port's investments and policies in the near future. Our industry faces a period of changes and adaptation so that we all need to work together to overcome the difficulties that will arise.

I would not like to conclude without highlighting that this has been a fantastic conference and I take this opportunity to congratulate the IAPH Secretariat and my colleagues from the Port of Hamburg for the huge efforts done to organize this Conference.

I look forward to the next two years as your President. Leading the IAPH however, is a big challenge taking into account the longstanding tradition of the IAPH and the high expectations of its members for the near future.

Thank you again for your support.



## Cyprus' port goes global

The Cyprus government believes the island's position in the Mediterranean makes it a natural choice as an international port and logistics hub. However, at present the country's main port, Limassol, is largely handling domestic cargo. The port serves national economic needs, but without any real international identity. That could change in 2016 as the government seeks private investors and operators to take over commercial services at the port.

The operation is one of a series of privatisations agreed with the European Union (EU), the European Central Bank, and the International Monetary Fund (IMF) in return for the EUR10 billion (\$11.2 billion) bail out that followed the island's banking collapse in

March 2013. The government hopes the sale will attract big-name operators interested in giving the port an international hub role. Recent unconfirmed Cypriot press reports claimed that DP World and APM Terminals had already expressed interest in taking up concessions at the port.

The government has indicated that it intends to put commercial services at the port of Limassol out to tender shortly and complete the tender process within the next 12 months.

Changes to the legal framework that governs the functioning of the Cyprus Ports Authority, which the government says are a prerequisite to the tender call, have been approved by the island's cabinet and introduced for discussion in

parliament. Communications and works minister Marios Demetriades told *P&H* in March that he wanted final bids in by the end of 2015, with the aim of selecting the winning party or parties before the end of March 2016.

He said that the government was open to either a single bid for all services or separate bids for parts of the tender. Concessions or operating licences are likely to be for 25–30 years.

Demetriades indicated that the main thing for the government was to find "the right strategic investor." "At the end of the day, the way we have been operating our ports has not been very successful in attracting additional business," he said. "At Limassol port, 95–96% of the business is local and, with the strategic location we have in the Mediterranean Sea, we should have much more international business."

## South Korea to develop Colombia's Buenaventura port

South Korea's Ministry of Ocean and Fisheries (MOF) will work with the Colombian government to upgrade the port of Buenaventura.

Buenaventura, located close to Panama Canal, is Colombia's principal trading port in the country's Valle del Cauca district. The port handles containers and general cargo. The port deals with nearly 60% of Colombia's main exports such as coffee, sugar, and tannin, and the cargo volume is rising. However, Buenaventura has been in need of expansion and maintenance of the hinterland due to wear and tear and congestion.

The move comes after MOF signed a memorandum of understanding (MoU) with the Colombian government in December 2014 to co-operate in developing ports in Colombia.

MOF will be in charge of surveying the current situation of



Buenaventura needs expansion and maintenance

Buenaventura, such as cargo volume, establishing a master plan such as port selection of the port and the size of the development, reviewing environmental impact, and conducting economic feasibility studies.

MOF plans to invite local experts and companies during the process and is set to form the

MOF-Colombia public and private sector joint committee on the port development within 2015. The committee will advise on matters such as financing for the development.

MOF expects the MoU to offer opportunities for Korean ports and logistics companies to enter Latin American markets.

## Port updates

### ► SCIENCE & MARITIME

The MPA of Singapore has signed a five-year MoU with the Singapore-based Agency for Science, Technology and Research (A\*STAR) to collaborate in research and development (R&D) in various fields relating to maritime technologies.

### ► PARTNERING

Taiwan International Port Corporation (TIPC) has signed an MoU with Japan's Naha port to enhance co-operation and seek new opportunities for shipping services between Japan and Taiwan. This is the first time TIPC has signed an MoU with a Japanese port.

### ► UNESCO NOD

Bans on dredged material disposal at sea, restrictions on port expansion, and a AUD100 million (\$77 million) government lobbying campaign have convinced the United Nations Environment Programme's World Conservation Monitoring Centre to recommend keeping Australia's Great Barrier Reef off the endangered list at present.

### ► ICTSI BUYS TMT

Singapore-listed port management company International Container Terminal Services (ICTSI) has acquired 100% of the capital stock of Mexico-based port operator Terminal Marítima de Tuxpan (TMT) for \$54.5 million.

### ► NEW DEVELOPMENT

Thailand's government has approved the Harbor A Development Project at Laem Chabang, allowing the Port Authority of Thailand (PAT) to construct an L-shape harbour measuring 30 m wide and 120–125 m long, as well as a marina 115x120 m long, with a mean sea level of 10 m.



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David A. Witt

Upgrades at Duluth are expected to help support increased US exports.

# Duluth to get a makeover

The effects of the biggest infrastructure project at the Port of Duluth, Minnesota, US, in more than 50 years will likely be felt well beyond the port's waterfront.

On 27 May, state and federal officials officially broke ground on the Port of Duluth Intermodal Project. The \$17.7 million scheme, undertaken by the Duluth Seaway Port Authority, will not only upgrade the port's intermodal facilities but will expand its capacity to handle more heavy-lift and project cargo.

The plan is also expected to enhance the transport competitiveness of the US Midwest region by increasing freight capacity via the Great Lakes-St Lawrence Seaway system, a major conduit for imports and exports.

Over half of the project's cost was paid for by a \$10 million grant awarded by the US Department of Transportation (US DoT), through its Transportation Infrastructure Generation Economic Recovery Discretionary programme, known as "TIGER" grants.

"When we invest in port infrastructure, we invest in an efficient transportation system that connects goods to Americans and American

communities to opportunity," commented US DoT chief Anthony Foxx.

The plan, which includes rebuilding and expanding general cargo Dock C and D, will put the vacant 11 ha (28 acre) dock back into service after more than 20 years, according to the port.

The project also involves replacing corroded sheet piling and deteriorated wooden dock walls, resurfacing the deck, reinforcing the dock's heavy-lift capacity, and constructing a new roll-on/roll-off dock.

In addition, the dock's adjacent vessel berths will be dredged, and new road and rail connections will be installed that will connect the dock to the highway and rail network. The first phase of project is expected to be completed by fall 2016.

The Port of Duluth project is part of a massive ongoing overhaul of the Great Lakes-St Lawrence maritime transport system.

An investment survey released earlier in 2015 by maritime trade consultants Martin Associates revealed that \$7 billion is being spent on infrastructure improvements along the US-Canadian bi-national system, which spans roughly 2,900 km (1,800 miles)

from Duluth, Minnesota, in the US Midwest to Sept-Îles, Quebec, in Eastern Canada.

The US and Canadian governments, through the Saint Lawrence Seaway Development Corporation and The St Lawrence Seaway Management Corporation, respectively, have dedicated close to \$1 billion to modernise the Seaway's lock infrastructure and technology over 10 years, starting from 2009 through 2018.

Great Lakes and St Lawrence River ports and terminals are also collectively investing more than \$1.7 billion to expand their docks, equipment, facilities, and intermodal connections.

Duluth Seaway Port Authority executive director Vanta Coda said upwards of \$40 million of work has been undertaken by terminals at the Port of Duluth-Superior alone in recent years.

He pointed out that it has taken 29 years and five TIGER grant applications to get the intermodal project under way.

"The story of this dock is, in many ways, the tale of waterfront infrastructure in ports across the US," Coda said. "How it unfolds chronicles the challenges we face in our ongoing efforts to make this country globally competitive."

## Port updates

### ► SHORE POWER

The Norwegian port of Bergen has inaugurated its first shore power system connecting the DOF Group offshore vessel Skandi Vega to the country's national grid. The switch-on ceremony were presided over by port chairman Øistein Christoffersen and Bergen city environmental commissioner Henning Warloe – who gave the order to start the system operation.

### ► LIVERPOOL2 MILESTONE

Milestone progress on the new GBP300 million Liverpool2 container terminal at Seaforth is on track after finishing the first stage of reclaiming 12 ha; more infill will take place over the next few months. Once fully operational (late 2015), Liverpool2 could create 500 jobs.

### ► PHILIPPINES' LAWS

Laws making shipping in and out of the Philippines easier could come into effect before 2016's elections, said Sergio R Ortiz-Luis Jr, president of the Philippine Exporters Confederation (PhilExport). Various legislative initiatives are underway, including Bill No. 2364, which would allow foreign ships to call in multiple ports, provided they carry import or export cargoes, hence lowering cargo costs.

### ► LNG MEGA-SHIPS?

LNG-powered mega-containerships could receive LNG bunkering possibly in Singapore, somewhere near the Suez area and Rotterdam if they are deployed in the Far East to North Europe trade, according to DNV GL.





# Planning for great service

**Richard Joost Lino**, CEO of Pelindo II, gives his take on what the goal should be for Indonesia's port developments

Indonesia Ports Corporation II

**H**igh logistics costs in Indonesia are not new. They have been sparked by inefficient ports and infrastructure. Many years have seen imbalance between port and transport access development, so containers stacked at ports has been a common sight.

Having graduated from Bandung Technology Institute (ITB) in civil engineering, I understand that improving maritime transport in Indonesia is a great challenge.

When I rejoined Pelindo II in 2009, 10 years after left the company, I found that ports were not managed well and employees were not trained.

Pelindo II manages Tanjung Priok Port,

which is Indonesia's main and most strategic port for exports. Until now, two-thirds of Indonesia's international trade passed through Tanjung Priok. However, the greatest problem of Tanjung Priok Port, is its service.

My goal is to boost 2015 container traffic by 160% from last year. The long time it takes to handle containers is in Tanjung Priok is a problem. Indonesia Logistic Association (ALI) recorded the average handling time for containerised imports in as having increased from 4.8 days in 2010 to 6.4 days in 2013. It's understandable that the World Bank 2012 *Logistic Performance Index* placed Indonesia in 59th position among 155 countries.

Therefore, I introduced the Pendulum Nusantara concept, whereby ships of 3,000–4,000 teu cross the main sea routes from western to eastern Indonesia regularly.

There are six main ports these vessels will pass through, namely Belawan (Medan), Tanjung Priok (Jakarta), Tanjung Perak (Surabaya), Makassar (Sulawesi), Batam (Riau), and Sorong (Papua). These six ports will also function as regional hubs for surrounding areas. Commodities will be shipped to those surrounding ports using smaller vessels.

We will develop the business environment so shipping can implement the Pendulum Nusantara concept. In the initial phase, every



Tanjung Priok port



‘I will let foreign companies invest in roads, ports, and other infrastructure’

**Richard Joost Lino**  
CEO, Pelindo II



Lily Bernha Karilia

Tanjung Priok. At present, only vessels from the US and Europe conduct stevedoring in Tanjung Priok, while all transshipments from Semarang or Surabaya are done in Singapore and Malaysia.

I believe I can encourage domestic cargo handling by offering discounted tariffs. I will give discounted handling tariffs for commodities from Surabaya or Semarang transhipped in Tanjung Priok and for every vessel conducting stevedoring there.

But if cargoes are transhipped in Singapore, the tariff remains intact. If more vessels conduct stevedoring activity, big vessels will enter Indonesia, so it will lower logistics costs.

Many things must improve to implement Pendulum Nusantara. In Tanjung Priok Port, for example, all systems have been improved so the port currently looks more arranged and tidy, but its cargo volume is growing significantly. Today the annual average volume in Tanjung Priok Port has reached 6.4 million teu, nearly double that in 2009 when it handled 3.8 million teu.

We are spending USD8 million conducting two studies to see how Pendulum Nusantara can be implemented.

The first study is about maritime transformation, comprising port, shipping, dockyard facilities, savvy navigation, and education. A long-term roadmap will then be generated.

A second study relates to lowering logistics costs from 24% of total transport costs to 10–12%. This study will measure how far logistics costs can be lowered if ports, shipping, and land transport are improved.

The money needed to fund the studies is well spent because the findings are likely to generate outside investment. I will let foreign companies invest in roads, ports, and other infrastructure that Indonesia could not otherwise afford.

I've also begun building a 7 km highway for direct access to Tanjung Priok. It crosses land

owned by its builders, Jasa Marga (Persero) and Kawasan Berikat Nusantara (Persero).

The growth in container traffic at Tanjung Priok has prompted construction of a terminal, named New Priok, to ease the congestion. The first phase is expected to be ready at the end of this year.

It will take only two and a half years from the project's initiation to the terminal opening.

Moreover, the New Priok proposal made history in getting the approval of the Investment Coordinating Board of the Republic of Indonesia (BKMP) in just three days. In similar fashion, the country's environment impact assessment took just six months.

Construction of New Priok is divided into two phases. In the first phase, three container terminals will be built. Each can handle up to 1.5 million teu/year, with a draught of 16 m and 800 m-long berths.

Another two petroleum products terminals will be built during this phase. Each will have a capacity of 5 million m<sup>3</sup>/year, alongside draught of 19 m and a length of 800 m.

Phase two will see four container terminals built, each with a capacity of 2 million teu/year, a draught of 16 m and a length of 1,000 m.

In addition, the New Priok project will improve connectivity to the hinterland by building access roads to the south and east of the port. Both phases will involve land reclamation and dredging of about 25 million m<sup>3</sup>.

Of course, I cannot force shipping lines to operate big vessels but I can create an environment where, if we use this method, we can lower the cost by improving the ports. Therefore, anyone can operate big vessels and can lower costs.

My task is to achieve my target, not popularity. I do not care what other people think about me. I believe I am doing the right thing for the country. I only want to complete everything so I will not feel in debt and regret if I cannot complete my work. **PH**

shipping line does not need to have its own big vessels: three to five big vessels can join and share a space. Therefore, this business can grow.

Implementing Pendulum Nusantara is not easy as it will cost USD5–6 billion to develop about 22 ports so they can be the connectors for six main ports. This programme has been included in the sub-programme of the Master Plan for Acceleration and Expansion of Indonesian Economic Development (MP3EI).

The new entity would use USD6–7 billion to revitalise 20–25 ports and to construct 10 new ones. The move will reduce transshipment in Singapore since stevedoring will be shifted to



# Hamburg shows its smarts

The 29th IAPH conference in Hamburg focused on technology and IT solutions, reports **Jem Newton**

**Part of the Opening Ceremony comprised an industrial ballet**

**A**t IAPH's 29th World Ports Conference themed 'Calling at the smartPORT' in Hamburg, Germany, from 1-5 June, the port authority (HPA) showcased Hamburg as a smart port by creating an app for the conference that crystallised the theme of practical technology. IAPH delegates were able to upload the app on mobile phones and tablets. The app not only gave access to the conference programme, but also allowed delegates to vote on issues raised by presentation speakers and ask them questions.

After an opening ceremony on 2 June characterised by clever graphics on container port themes and a spectacular 'industrial ballet' involving trampolining and parkour, delegates were welcomed to Hamburg by government transport officials and HPA board chairman Jens Meier.

The keynote presentation by Gerd Leonhard, CEO of the Futures Agency, challenged ports to stop thinking merely in terms of their own 'silo' and be aware that

some of their business will be increasingly under threat from entrepreneurs able to better handle the implications of growing automation.

Because of the increasing sophistication of technology, change is coming to the transport sector and it will be exponential, he said in a keynote speech. "There will be faster technological change in the next 20 years than in the past 300 years," he warned. "Everything that can be automated will be automated."

Ports need to look at their operations and identify which aspects of them are digitally contestable, he continued. "If you do not get ahead of the curve in the digital revolution, someone from outside the port sector, who is better qualified, will take those parts of the business from you."

He said that as well as exponential growth, the future of technology would mean more collaboration and interconnectivity. "The future for transport companies will be about managing interdependence rather than competing with each other."

The afternoon session of the first day of the conference was largely devoted to the issue of increasing size of container ships. Jost Bergmann, a DNV GL container ship specialist, pointed out that there were diminishing





**There were myriad opportunities to network - for example at the Gala Dinner...**

returns associated with the recent increase in the size of the largest container ships, suggesting that they may not get much bigger. Several speakers suggested that the increased safety risks posed by larger ships in ports had not been given sufficient weight in the rush to increase ship sizes because of the economies of scale offered.

Benjamin Lai, managing director of DaChan Bay Terminal in the Pearl River Delta, said another issue was crane productivity, as in terms of lifts per hour the physical distances involved in each crane lift were greater the larger the vessel being handled. "We need to work closer with our shipping lines to improve productivity," he said.

The secretary-general of the International Chamber of Shipping Peter Hinchcliffe also drew delegates' attention to some of the defects of recent maritime regulation, including regulations on ship emissions introduced in January and the Ballast Water Management Convention.

During the panel discussion that followed, the question of who should pay for the terminal expansion needed to accommodate bigger ships was raised. Not all panel speakers believed there was sufficient consultation between container lines and terminal operators.

An audience vote via the app revealed that 65% of delegates felt it made no sense for one part of the logistic chain to benefit from mega box ships at the expense of other players.

The second day of the conference was devoted to the challenges in realising 'smart port' concept, which is becoming more efficient, while reducing costs and environmental impact.

Volker Worthmann of Lufthansa shared the airline's experience of merging real-time data of companies and people to create a smoothly operating and risk-controlled transport system. Wim Elfrink of Cisco Systems discussed how the internet enables ports to create new business models and drive new efficiencies in their operations.

Meier showcased Hamburg's smartPORT concept, suggesting that unlike the expansion of terminal

infrastructure, IT solutions are relatively a cheaper option to improving port operations. Speakers from Fremantle, Australia, and Valencia, Spain, explained how introducing technology had improved their port operations. The panel discussion that concluded the morning session stressed the importance of linking freight and transport data, where the challenges are the greater number of boxes that container terminals would have to handle in future and a lack of homogeneity in realising advanced IT systems in ports.

After lunch, speakers from the Port of Hamburg described in detail how technological improvements had benefited the port's efficiency and sustainability. Harbour master Joerg Pollmann took delegates on a visual tour of the port to explain how efficient technology had reduced emissions at terminals and various energy generating plants. Port consultant Henning Kinkhorst explained that new terminal concessions in Hamburg now included green and energy-efficient elements in the bidding process. Lutz Birke of the port authority gave a detailed view of energy-saving projects, including the first onshore power centre for cruise in Europe, a dedicated barge which has just begun powering vessel calls at Hamburg's cruise terminal.

Monika Breuch-Moritz of the Hamburg region hydrographic agency gave an overview of international environmental legislation that is impacting ports, focusing on ballast water monitoring and the development of ship emissions control.

Gun Rudeberg of Ports of Stockholm talked about Swedish ports' efforts to use incentives to persuade port users to reduce their environmental impact and the importance of monitoring energy consumption. The questions put to her afterwards provoked a lively discussion with the audience about the effectiveness of incentives versus regulation in persuading companies to change their behaviour.

Bremenports managing director Robert Howe reported on progress at the ports of Bremerhaven and Bremen in developing their sustainability strategy and especially the authority's plans for an LNG bunkering station and LNG-powered vessels for inland waterways.

The panel discussion that concluded the second



Port of Hamburg



Port of Hamburg

day focused on the measures taken by north European ports to achieve sustainable operations.

The evening event was hosted by the Indonesian Port Corporation, which will host the next IAPH world conference in 2017. Bali Night was a chance for those who had not visited Indonesia to experience Indonesian cuisine and Balinese entertainment, perhaps for the first time.

The last full day of the conference was split, with the main hall focusing mainly on the cruise industry. At the same time there were parallel sessions focusing on maritime law and regulation with presentations on dispute resolution, arbitration, and insurance. After the coffee break there was a session on diversity in ports, focusing on port technology.

## Everything that can be automated will be automated

**Gerd Leonhard**, *Futures Agency*

In the main hall, Douglas Ward, author of the Berlitz Cruise Guide, opened the industry focus with some pointers to aspirant port authorities about what to focus on and what to avoid if they plan to invite cruise calls. Cha Min-Sik of Busan Port Authority spoke of the South Korean port's ambitions to become the leading cruise homeport in northeast Asia.

Roberto Perocchio, managing director of Venice's cruise terminal talked of the successful transformation of the old commercial port into a cruise hub for the whole eastern Mediterranean and the routing challenges faced by mega cruise ships and other large vessels in the Venetian lagoon. As well as talking about the impressive growth in the cruise industry in the past decade, AIDA Cruises president Michael Ungerer said a key challenge facing the industry is a continuous improvement of its environmental performance.

Bo Larsen of the international cruise association CLIA urged ports to collaborate with cruise lines to improve their passenger infrastructure and stressed the need

for a changed mindset in port operations. The panel discussion that followed focused on the 'chicken and egg' situation that obliged ports to invest heavily in cruise infrastructure while being uncertain whether cruise calls would be profitable in the long run.

However, cruise lines presenting on the panel stressed the industry is poised for growth and reiterated their willingness to collaborate with ports on exploring options.

After coffee break, Alexander Porschke of German environmental NGO NABU announced the publication of a study entitled 'Clean Air in Ports', giving an overview of port emissions and the impact of urban ports on public health. Johan Röstin, CEO of Copenhagen-Malmö, described the measures the Scandinavian twin port has taken to reduce port emissions in collaboration with local and regional authorities, as well as other ports in the region.

Gene Seroka, executive director of the Port of Los Angeles, explained how the ports of Los Angeles and Long Beach, North America's largest trading gateway, had introduced a very successful Clean Air Action Plan, including cleaner trucks and onshore power.

Christine Loh of Hong Kong's Environmental Bureau presented the port's Fair Winds Charter, a dialogue that had enabled the port city's people to achieve a voluntary reduction in ship emissions in dialogue with the leading container carriers, and spoke of plans for a regional scheme for the Pearl River delta.

The panel that followed stressed ports' key role as facilitators in bringing local and commercial stakeholders together to achieve environmental improvements. Panellists also spoke of the need to include the whole supply chain in achieving emission reductions and called again for common measuring standards between the many different types of port.

The conference concluded with a gala dinner at the city's Fish Auction Hall, but for those staying on there was an opportunity on 5 June to visit the port itself, with the main focus on the smartPORT logistics that were the theme of the conference. **PH**

**i MORE INFO:** [www.iaph2015.org](http://www.iaph2015.org)

... and Bali night, sponsored by the 2017 conference host, the Indonesian Port Corporation





# Port of Singapore goes 4G

Singapore adopts 4G broadband network coverage as a first step towards a smarter port, reports **Titus Zheng**

**T**he Port of Singapore has pressed on towards being 'smarter' through the launch of fourth-generation (4G) mobile telecommunications technology in its waters.

This followed a March memorandum of understanding (MOU) between Singapore-based telecommunications services provider M1 and the Maritime and Port Authority of Singapore (MPA) to promote 4G broadband network coverage for vessels operating within Singapore's port waters.

The two organisations will also work together to test technologies to further enhance network connectivity and coverage in port waters off Singapore.

Willis Sim, director of product development and corporate solutions at M1, told *P&H* the telecommunications company had received "highly positive feedback" from shipping companies and crew during a trial of the 4G network. After this pilot, the company offered corporate customers the flexibility of a shared mobile-data bundle of up to 100GB through M1's Corporate Data Pooling Plans, available to ships visiting Singapore and local harbor craft.

"The maritime sector is undergoing significant transformation, with smarter ships, just-in-time logistics, and more intelligent ports being built," noted Andrew Tan, CEO of the MPA, highlighting the necessity of adopting technologies for better port operations.

basic wi-fi services at its ferry terminals for the public, starting in July. The initiative is part of the MPA's extension of the Wireless@SG programme.

The MPA has also launched a mobile application named myMaritime@SG to the maritime community and the general public. This allows users to obtain latest information on ship arrivals and departures, port and marine notices, and tidal information. Thus, the users can plan their shipping routes and make commercial decisions using mobile connectivity.

Further, the MPA has collaborated with the Singapore Shipping Association in inviting software solution providers to develop innovative business-to-business applications that enhance maritime logistics operations, ship-to-shore communications, and remote monitoring of marine operations from shore. The MPA has set aside SGD2 million (USD1.47 million) to co-fund projects approved under this initiative.

Josephine Teo, senior minister of state for finance and transport of Singapore, claimed these initiatives for mobile and wireless connectivity served as a "backbone" for the smarter Port of Singapore. "Innovation and technology will be the critical levers for us to maintain our competitiveness and remain the premier hub port in Asia and the world," said Teo.

"We want our port to capitalise more on technology, especially info-communications technology, to enhance the productivity, reliability, and efficiency of business operations; improve safety standards; and create new business opportunities. This will also support our vision for Singapore to be a 'smart nation,'" she explained.

In realising the vision of a smarter port, Teo revealed that the government has adopted multi-pronged approaches, with improving mobile and wireless connectivity in Singapore's port waters being the first step.

The 'smarter port' concept will also deal in the area of automation, including using automated vehicles in port, as well as focusing on data analytics to improve enforcement. In the meantime, the development of a next-generation vessel traffic management system with capabilities such as early detection of congestion hotspots will be covered as well.

Such approaches are deemed crucial for the country as the maritime industry is a key pillar of Singapore's economy, contributing about 7% of its GDP and providing more than 170,000 jobs. Singapore is well-known as a top bunkering port as well as a leading international maritime centre, with one of the world's busiest transshipment hubs. **PH**

**“We envision a more interconnected port with high-speed internet, data analytics, and innovative mobile solutions”**

**Andrew Tan**, chief executive of MPA

"We envision a more inter-connected port with high-speed internet, extensive use of data analytics, and innovative mobile solutions to enhance our port's overall competitiveness. This will benefit all users at the Port of Singapore."

Now the maritime community can have high-bandwidth, low-cost, secured, wireless 4G broadband access with coverage up to 15km from Singapore's coast. This will allow users to stay connected with their shore offices, facilitating operational efficiency, as well as helping seafarers maintain regular contact with their families and friends.

The MPA is going a step further by providing free,



# Appointments please

US ports are moving towards a truck-appointment model to relieve congested gates, but **Joseph Bonney** says its success will hinge on the breaking of bad habits

**R**ich Ceci, Global Container Terminals (GCT) Bayonne's vice-president of information technology, starts work at 04.30, but others arrive even earlier. In recent times, truckers have had to line up before midnight outside the GCT Bayonne container terminal in New Jersey. Sometimes, the queue stretched for miles.

When gates open at 06.00, the traffic jam moves into the terminal. Hundreds of trucks fill driveways at container stacks. Longshore workers have to manoeuvre equipment between tight-packed vehicles. Productivity can slow and tempers flare. By mid-morning, drayage drivers who had hoped for a profitable day are waiting, fuming, and posting photos on Facebook.

"It's crazy. It doesn't have to be this way," said Ceci. He believes the solution is appointments that will allow terminals to calibrate the flow of trucks through their facilities and to match truck demand with capacity at entrance gates and in each area of the terminal.

GCT Bayonne plans to introduce such a system this year and other New York-New Jersey terminals are quietly preparing to follow. The Port of Virginia plans to begin testing an appointment system at Norfolk International Terminals (NIT) in the third quarter of

2015 and eventually roll it out port-wide. The NIT appointment system had a short-lived test in 2014.

Appointments remain the exception at container terminals, but the concept is gaining support. Forms of appointment system already exist at North American ports such as Los Angeles, Long Beach, New Orleans, and Vancouver, and in ports from Southampton in the United Kingdom to Sydney, Australia.

Advent Intermodal Solutions' eModal technology supports management of trucker appointments at several ports and will be used at New York-New Jersey and Virginia. All New York-New Jersey terminals will feed container availability data into their port's system.

However, winning acceptance of appointments may hinge less on technology than on industry psychology and habits. Ceci and others, including Beth Rooney, assistant director for port performance initiatives at the Port Authority of New York and New Jersey's port commerce division, said appointments would require adjustments by terminals, truckers, and cargo owners. "It will change the paradigm," Ceci said.

Truck management systems ranked high among recommendations in 2014 by industry task forces created to find solutions to chronic congestion at





**The PierPass system operating in ports including Long Beach (pictured), uses a weekday gate fee to help even-out peak truck movements**

terminals in New York-New Jersey and Virginia.

The concept has been a hard sell with motor carriers who question whether terminals can deliver the promised benefits. Trucker reaction has ranged from skeptical to hostile. "It's not going to work. It's never-never land," said Tom Heimgartner, president of New Jersey-based drayage operator Best Transportation. The Association of Bi-State Motor Carriers opposes appointments until terminals can assure truckers of short, reliable turnaround times.

He and other truckers said that before going to appointments, terminals should extend gate hours and run their facilities more efficiently.

Ed O'Callaghan, president of Century Express in Norfolk, Virginia, said it was unrealistic to expect appointments to suddenly provide quick turnaround times. "They still won't be ready for us," he said. "That's why I don't see it coming to Virginia for a long time. They have to bring the turnaround times down before it makes any sense to put in an appointment system."

Debate about appointments is a chicken-and-egg discussion. Truckers say they will not accept appointments until terminals can shorten turnaround times and end long queues. Advocates of appointments say that cannot be done until terminals know when a truck will arrive to pick up a particular container.

"We want to get rid of the queues," Rooney said. "That can't happen if the terminals have no visibility into who's coming ... to pick up which box at a particular time."

Everyone agrees that change is needed. Congestion and delays are frustrating cargo interests and generating disputes over demurrage and per-diem bills for late pick-up or return of containers. At New York-New Jersey and Virginia, motor carriers report increasing difficulty hiring and retaining drivers and managing their work under federal hours-of-service limits.

Most port drivers are owner-operators paid by the mile. O'Callaghan said his company's average drayage trips per day, which include local moves and longer hauls up to 483 km, have declined from 3.9 in 2013 to 2.0 in 2014, to 1.6 in the first quarter of this year.

While truckers worry about turnaround times and driver retention, terminals are anxious to improve utilisation of their equipment and labour. GCT Bayonne in 2014 unveiled a USD325 million expansion that features 10 dense container stacks served by 20 rail-mounted gantry cranes (RMGs) that are remote-controlled by longshoremen in an office building.

The technology works, but Ceci said unpredictable truck traffic left some of the new RMGs underused, while others have more work than they can keep up with. Estimating the flow of trucks could keep all cranes busy and shorten truck turnaround times, he said.

The truck management system envisioned at GCT Bayonne would have appointment windows not only for terminal gates, but also for areas within the terminal. Congestion at terminal gates usually is a symptom, Ceci said. "When people think of appointment systems, they

tend to think only of the gates," he said. "But we have to look at the whole system. It doesn't do any good for us to let the trucks into the gates and then figure out what to do with them."

Terminals use computerised operating systems to manage their yards. Meshing those systems with online appointments will allow a terminal to match the truck flow with equipment availability and reduce the chance a driver will have to wait for an import container to be dug from the bottom of a stack, Ceci said.

Terminals will have to decide how wide to make appointment systems, how much slack to build in to truck scheduling, and how to create a balanced system of penalties and incentives for truckers and terminals. Such details are being discussed. The only thing that is certain, Ceci said, is that the system will evolve as everyone learns what works and what does not.

Systems at other ports suggest the range of possibilities. PierPass at the ports of Los Angeles and Long Beach and managed by Advent Intermodal Solutions, does not use an appointment system, but uses a fee on weekday gate moves to subsidise the cost of keeping terminal gates open nights and Saturdays.

APL's Eagle Marine Services terminal at Los Angeles introduced appointments last July following a switch from storage of containers on chassis to a primarily grounded operation in which boxes were stacked. It requires 24 hours' notice for import pick-ups. There is no penalty for missing the window, but a trucker who does not show up must make a new appointment.

Frank Mazzella, director of terminal processes at Eagle Marine Services, said, "It's turned out to be a significant component of our daily yard planning. Predictability is valuable for everybody; not only for the terminal but for the trucker and, ultimately, the beneficial cargo owner."

At Port Metro Vancouver in Canada, truckers have two-hour appointment windows under a system that has been in place several years. A USD50 fee on daytime gate moves supports the operation of second night gates that a second shift operates until 01.00.

Eric Waltz, president of GCT Canada, said the system is working smoothly. "It's not a perfect system. ... But the service level we've gotten from it is a dramatic improvement," he said. Average turnaround times for all trucks at GCT's Vancouver terminals are 22 to 28 minutes. Less than 3% of turnaround times are longer than 90 minutes, after which the terminal must pay a penalty, Waltz said.

Such turnaround times remain a dream at New York-New Jersey and Virginia, where high volume, off-schedule arrivals of large ships, and weather problems have contributed to frequent, expensive delays.

Although truckers remain doubtful, both ports are moving towards appointments systems. With trade volume growing and the raised Bayonne Bridge and expanded Panama Canal expected to bring even larger ships, Rooney said, "It's not something we can afford to not discuss." **PH**



Port of Rotterdam

# Marrying safety and efficiency

In this first of two articles, **Bill Mongelluzzo** of IHS JOC reports on APM's automated Maasvlakte II terminal in Rotterdam

## Container cranes at Maasvlakte II terminal

**A**PM Terminals in Rotterdam has opened its "container terminal of the future", with the aggressive prediction that Maasvlakte II will improve vessel productivity by 40%. The value-added of the 212-acre automated operation is that worker safety and the environment will also benefit.

"Speed, safety, and the environment are the main factors," Henk De Groot, APM's chief operating officer, told *P&H*.

Big ships are driving the need for automation at container terminals in major gateway ports such as Rotterdam, New York-New Jersey, and Los Angeles-Long Beach. Terminals that handle 1 million teu or more a year must provide consistent, reliable, and uninterrupted performance. Only machines can meet those qualifications, De Groot used Maasvlakte II's automated ship-to-shore (quay) crane operations as an example. A skilled longshoreman at a gateway port can produce 30 container moves per hour at his or her "best time of the day", he said. However, as the shift wears on, productivity can erode due to fatigue or other factors. An automated crane may likewise do 30 moves per hour, but will perform at that level throughout the day. APM's goal for its cranes is to beat the manually operated cranes' average performance by 50%, said De Groot. Also, unlike traditional quay cranes in which the operator bends over and looks down at the containers

as they are lifted off and on the vessel, the automated crane is operated remotely from a tower. The operator oversees the operation in front of a computer, and vision is not distorted by wind, rain, or fog.

Maasvlakte II's automated quay cranes have two hoists. The main hoist, which works over the vessel, is computer-controlled. The computer lowers the spreader to within a safe distance of the container. The operator then lowers the spreader the final few feet to the container. The container is then lifted from the vessel and moved to an elevated platform on the landside of the crane. The main hoist is then immediately free to return to the vessel. A second hoist moves the container from the platform down to an automated guided vehicle (AGV) on the ground. Because the AGV is driverless, the landside hoist can be fully automated.

This two-stage operation allows each hoist to move more quickly without having to wait for the other. Also, the marriage of the second hoist from the platform on the landside of the crane to the AGV allows that move to be co-ordinated without interfering with the rhythm of the first hoist. Saving seconds of operating time on each portion of the move, and repeating the moves thousands of times a day, produces huge improvements in productivity.

Maasvlakte II's AGVs are cutting edge. Each AGV has a lift capacity that allows it to place the container into a support structure at the front of the appropriate container stack in the yard. Therefore, the AGV does not have to wait for the automated stacking crane to retrieve the container. Rather, the AGV discharges its container and scurries back to the quay crane for another container.

Because it is impossible to have all of the machines in an automated operation completely co-ordinated as containers are moved from one location to the next, valuable seconds are saved in each move because the machines are decoupled from each other.

Also, the container stacks are segregated as to mode of inland transportation. Maasvlakte II is served by three modes of inland transportation – truck, intermodal rail, and barge. Stacking the containers according to mode, which is managed by the computerised terminal operating system, allows for a more efficient container move from the stack to the inland transportation vehicle, also saving valuable time.

AGVs at Maasvlakte II are electric-powered and run on batteries. Time is also saved in exchanging the batteries. When the battery runs low, the AGV goes to the maintenance shed where a fully charged battery is waiting. Replacing the battery takes six minutes, De Groot said.

The industry move to automate a terminal is being driven primarily, though, by the need to efficiently handle big ships. "This requires a step up in innovation," De Groot said, "By the end of each day, the automated terminal will prove its worth by providing a stable product, with consistent, reliable performance throughout the entire day." **PH**



# Five challenges for automation

Increasing port efficiency demands a rethink on the use of technology, **Kari Reinikainen** reports

**C**ontainer terminals face a number of challenges as volumes continue to grow and the shipping side of the business itself is changing. Automation can help to tackle these problems, but a change in thinking in this area could also be helpful.

Alexandru Duca, head of design and automation at APM Terminals in the Netherlands, has summed up five key challenges container terminals face: safety performance on par or better than other industries; larger scale of operational complexity due to bigger ships; limits to terminal space availability for expansion and the risk of congestion; maintaining profitability through economic cycles affecting shipping lines; and to do more with less space every year.

By looking at a container terminal within the context of a self-contained, holistic ecosystem of interdependent functions and needs, improvements in machinery and procedures can be designed into the system, often by adapting basic changes seen in other industries, he advised the Port Equipment Manufacturers Association (PEMA) conference earlier this year.

Changes in the operating environment of container shipping in the past few years have put increasing pressure on container port efficiency, said Christopher Pålsson, managing director of Gothenburg-based consultancy Maritime-Insight.

From the ports' point of view, developments since 2008/09 have had a profound impact. The size of ships has continued to increase, but it is no longer possible to compensate for longer times in port by sailing faster; the reverse has become the case. "Longer stays at ports

not only decrease efficiency, but they quite simply also cost an awful lot of money," Pålsson pointed out.

This has put ports under growing pressure to improve efficiency. "There are two ways ports can meet this challenge: one is automation; the other is to hire more staff," Pålsson noted. Automation will be the answer in regions such as Europe and North America, where the cost of labour is high. Some parts of Asia, for example, can rely on more staff as the cost is not a crucial aspect.

Alan Burns, managing director of Edinburgh-based consultancy Burns Ports & Logistics, pointed to figures from BIMCO showing that in 2013, output at the world's container terminals amounted to about 600 million teu lifts. This was 25% more than in 2007, the last year before the financial crisis, and more than double the 280 million teu lift figure of 2003. "The challenge is that we face growth both in ship size and in cargo volumes despite the financial crisis," he noted.

Ports that handle transshipment business need to look at automation most urgently – for the compound effect of growing size of both mainline and feeder ships.

Duca noted that while a lot of standardisation has taken place, much work remains. Improvements are mostly done within projects, generally based on customer commitment to change. "This project-based collaboration creates lots of separated solutions and does not contribute to the higher levels of standardisation demanded by our industry," he told *P&H*.

Ports and terminals are different. Each facility is designed based on specific business requirements and market conditions. "Our call for greater standardisation is basically addressing this challenge. In our speech to PEMA we mentioned that we need to build on similarities, rather than differences between our port/terminal projects," Duca said.

"Documenting operation interfaces will create the standardisation space where our equipment manufacturers could maximise their efforts and engineer solutions, which will address not only the equipment performance, but also operational performance," he continued. "It also calls for a faster phase of technology improvements as automation is becoming a standard operation mode."

Large terminals lead the way towards automation, which has considerably reduced the number of accidents, said Laurence Jones, director of global risk assessment at transport industry insurance provider TT Club. "We have seen injuries and insurance claims in automated stacking yards dropping to nearly zero.

"The remaining challenge is to address the three functions where automation has not yet enabled the removal or relocation of people. These are lashing on the ship, the loading or unloading of containers from trucks, and maintenance of equipment.

"We have the technology; we just need to look at ways to make them more economically viable for more terminals and convince more terminals of the benefits," Jones concluded. **PH**

Three areas remain where automation has made little impact

**Laurence Jones**

*Director of global risk assessment at TT Club*



TT Club



Gilbert Bellamy/CMA CGM

## Jamaican hub rejuvenated

One of the most important transshipment hubs in the Americas market, Kingston Container Terminal, is switching to a private operator, **Greg Miller** reports

**A**s Panama Canal expansion nears completion, container terminals in the Americas continue to position themselves for new business from larger vessels. The latest development, a private operating agreement for Jamaica's Kingston Container Terminal (KCT), reveals how these strategies diverge.

Some Caribbean terminals are digging access channels and berths to depths that will accommodate the largest vessels capable of transiting the Panama Canal when the third set of locks open in the first half of 2016. Others are opting for a more modest approach, contending that the largest ships will not initially transit the region.

Manzanillo International Terminal (MIT) in Colon, Panama, and SPRC's Contecar terminal in Cartagena, Colombia, will be deepened to 16.5 m when the expanded canal is opened. Freeport Container Port in the Bahamas, which at present caters to the Suez transits of the Maersk-MSK alliance, is already at 16 m.

The DPW Caucedo terminal in the Dominican Republic is on the more modest side of the equation, recently dredging to 15 m. The new private operator at Jamaica's KCT – Kingston Freeport Terminal Limited (KFTL) – is going shallower still, dredging berths to only 14.2 m in its initial stage.

"This is an economic decision, which sought to balance the cost of dredging with the projected deployment of vessels," said the Port Authority of Jamaica (PAJ). The PAJ said the limited dredging decision was based on the belief that carriers "are unlikely to deploy 12,000–13,000 teu vessels in this region immediately after the expanded canal opens".

KFTL is a special-purpose vehicle that is 80.4% owned by French carrier CMA CGM and 19.6% owned by China Merchant Holdings International. The PAJ awarded a 30-year development and operating concession to KFTL in April.

According to Shipping Association of Jamaica president Kim Clarke, "The association of welcomes



the award of a concession for the operation and expansion of the Kingston Container Terminal. The association views this development as immensely positive for Jamaica.

"Primary among the reasons for our optimism is the fact that the terminal will now be operated by the private sector and by a global terminal operator that has the experience, connections and influence to ensure that KCT can regain its hemispheric pre-eminence in shipping and logistics," said Clarke.

"Secondly, the CMA-CGM Group has shown commitment to a Jamaican shipping hub and has steadily increased its business in Kingston over the past six years, becoming a major partner to the port."

KFTL is paying USD75 million to the port authority for the physical assets, a USD15 million set annual fee, and a variable annual fee equal to 8% of gross revenues. The concessionaire will invest USD509 million over two phases.

In phase one, to cost USD259 million, quay walls will be strengthened and berths will be dredged to accommodate vessels with draughts of 14.2 m, compared with the present allowable draughts of 12.6–13 m. The harbour access channel will be deepened from 13 m to 15.6 m.

Although phase-one dredging and berth reinforcements are expected to be completed in late 2016 or early 2017, the concession agreement gives KFTL until 2019 to finish the work. By 2020, terminal capacity will be increased to 3.2 million teu/year from 2.8 million teu/year currently.

Upon the completion of phase one, KCT will have 11,000 ground slots for full containers, 5,000 slots for empty containers, 750 reefer plugs, and 18 post-Panamax quay cranes (compared with 14 at present), according to a presentation by CMA Terminals.

KCT currently has 28 operating straddle carriers, allowing for use of two straddle carriers per crane. According to CMA Terminals, KCT will have 64 straddle carriers by the end of phase one (including 60 new units), allowing for 3–3.5 straddle carriers/crane.

In phase two, costing USD250 million, berths will be deepened to accommodate vessels with draughts of 15.5 m, the channel will be deepened to 17 m, and capacity will be increased to 3.6 million teu/year. The number of post-Panamax cranes and straddle carriers will be increased to 20 and 70 respectively. According to the PAJ, work on phase two must commence by 2026.

Dredging under the new concession agreement will be at a much slower pace than previously envisioned. A circa-2012 PAJ plan called for the access channel to be dredged to 17 m by the end of 2014 at a cost of USD150–160 million and for dredging to be kept separate from the terminal concession. That plan was derailed by the PAJ's weak finances and Jamaica's sovereign debt crunch. To facilitate international debt extensions, the government agreed to cease guaranteeing loans to public entities such as the PAJ.

The PAJ conceded this month that its decision to include dredging in the concession agreement was due to "the condition of PAJ's balance sheet, where internal reserves are inadequate" and "the government's debt-management policy, which eliminated guarantees".

CMA Terminals estimates that KCT's throughput will rise from 1.5 million teu in 2016 to 3.2 million teu in 2025 and 3.6 million teu in 2034. "Our goal is to keep the existing customers and develop other high-margin customers like China Shipping and UASC," said CMA Terminals in its presentation, referring to CMA CGM's Ocean Three alliance partners.

CMA CGM currently splits its own Caribbean transshipment volumes between Kingston, Cartagena in Colombia, and MIT in Panama, but that would presumably change. According to the CMA Terminals document, "CMA CGM will use KFTL as one of its major transshipment hub ports in the Caribbean region, bringing transshipment volumes mainly from Manzanillo and Cartagena to Kingston."

Questions remain over whether excessive centralisation of transshipment at one Caribbean hub is feasible. According to Giovanni Benedetti, vice-president of Cartagena terminal operator SPRC, "CMA CGM does not have the sole power to reroute all those volumes. As consortia become larger, you need decisions from the other actors in the system."

Benedetti believes a single hub would be inefficient from voyage-distance perspective. "There is a lot of cargo coming from Brazil into Cartagena and Panama, connecting to Asia. Going up to Kingston [from Brazil] and then coming down again [to the Panama Canal] wouldn't make economic sense," he reasoned.

Another issue is the mix of transshipment and domestic cargo. According to Benedetti, CMA CGM currently moves about 500,000 teu/year through Cartagena and domestic cargo accounts for about 120,000 teu/year of the total. "You'll never get that in Jamaica," he maintained.

"Of course we are definitely concerned," Benedetti admitted when asked about the risk of losing CMA CGM's business to Jamaica. "But in reality, it will be very difficult for them to do that." **PH**



**Signing the new concession (seated from left to right): CMA CGM CEO Farid Salem, Jamaican transport minister Omar Davies, Jamaican prime minister Portia Simpson Miller**

# Linz to grow with EU backing

The Danube region is of special significance to the European Union, so the Austrian port of Linz, as a major trimodal hub, could be hugely important in growing trade throughout the area and beyond. **Tony Slinn** reports



Linz

**L**inz, Austria's third-largest city, has the upper Danube's second-largest port, which is at an important intersection for increasing international freight flows.

Its cargo volumes are picking up rapidly and, the European Union (EU) reckons, will surpass pre-crisis levels in the next few years. The port was already at more than 80% of its handling capacity in 2008.

With those increasing intercontinental as well as intra-European import, export and transfer volumes, however, serious bottlenecks in rail and inland shipping connections identified at the port are now urgently in need of remedying. As a result, the EU's Trans-European Transport Network (TEN-T) programme is giving Linz more than EUR850,000 (USD950,000) to fund development studies that aim to increase the port's capacity to receive larger inland waterway, rail and road transport flows.

The studies will underpin expansion of the port's trimodal abilities and deliver a masterplan for overall port development, as well as detailed designs to prepare for infrastructure improvements and construction. Its implementation will be monitored by INEA, the European Commission's Innovation and Networks Executive Agency, and it is due for completion by the end of this year.

The Danube region is important to the EU not just because of the many countries it contains, but also because it offers direct passage to the Black Sea basin and has huge potential to become a 'green corridor'. Via the Rhine and Main rivers, the Danube is connected to the North Sea and Rotterdam, the EU's largest port.

The TEN-T project will seek to show how cargo transfers between German, Dutch, and Adriatic seaports, as well as the central European hinterland and the Rhine-Main-Danube river ports, can best be achieved. As such, the project will significantly contribute to two new EU infrastructure priority policies: Railway Axis 17, from Paris-Strasbourg-Stuttgart-Vienna-Bratislava, to include Munich, Salzburg and Linz; and Waterway Axis 18 – Rhine/Meuse-Main-Danube (also designated as the TEN-T 'core network corridor Rhine-Danube').

Linz appreciates its function as a vital trimodal hub and works with other key players along the Rhine/Meuse-Main-Danube axis in such areas as the TEN-T LNG Masterplan for Rhein-Main-Donau-Achse project. About 5.5 million tonnes of cargo annually is moved through Linz and the biggest port on the upper Danube, the Voestalpine Works port.

Present facilities at Linz, however, are deemed





**Artist's impression  
of the port  
administration  
building**

“not satisfactory for cargo volume development” by the EU, especially in terms of stimulating combined transport. New infrastructure for both railway and inland waterway transport is vital, as is construction to increase container transfer capacity.

The EU sees the overall Linz improvement project running to 2020 and beyond over four-phases:

Phase I covers land reclamation in the port basins, with environmental compensation, and extension of the container terminal to include: an increase of railway capacity; electrification of railway switch rails; improvements to inland shipping transfer capacity; and tripling storage capacity from 3,000 teu to 9,267 teu.

Phase II will involve further work on the container terminal, including an increase in transfer capacity to 2,380 teu/day and 450,000 teu/year, plus a storage capacity increase from 9,267 teu to 10,126 teu and a new crane track with two new portal cranes.

Phase III will involve a port railway station and works to include: electrification of the ÖBB (Austrian railway company) tracks to the station; electrification of tracks from the station to the box terminal; an increase in the length of ÖBB-owned tracks; new signalling; and a new loop to give direct connection between the port and ÖBB's western main track.

In Phase IV further infrastructure will be created, aimed at developing a new logistics park on land reclamations in port basins 1 and 2 and at the headland. Basin 1 is planned to have new warehouses, basin 2 a deep-freeze storage facility, while the headland will be redeveloped to provide logistics facilities for transshipment and warehousing.

Finally, the port masterplan will look to further develop and extend the logistics park, including more facilities for warehousing and transshipment on the reclaimed areas and headlands, as well as development of an 'industrial lane' on port premises to ensure capacity bottlenecks are eliminated. In addition, the masterplan will cover detailed planning to develop the port railway station, plus further container terminal expansions.

P&H asked port of Linz infrastructure and technical manager Josef Siligan what work had been completed, what work was now under way now, and what had yet to start. “Phase I is already finished and was funded by the EU,” he said. “Phase IV is the current project, while phases II and III should be the results of the current project.” To unravel any confusion, he pointed out, “When we submitted the first project, it was likely that phases II and III would start earlier than phase IV.”

The Phase 1 land reclamation, in the port basins, covers a total of 62,000 m<sup>2</sup>, he confirmed. “Dredgers were used for the reclamation and the main contractor was GLS, the subcontractor was Brandner.”

Under EU plans, works to extend the container terminal were scheduled for completion last August, P&H noted. Siligan explained, “The main aim of that phase I project was to extend the container terminal by about 20,000 m<sup>2</sup>. Additionally, we added a new portal crane to the terminal



with an 88 m spread and 41-tonne lifting capacity.”

Asked if everything was completed on schedule, he said, “No. Sadly not. We did not have a single main contractor for the whole project, but several, and suffered a delay of about four months. We finished right at the end of 2014. That said, the new enlarged terminal is running as planned.”

The Phase II plan calls for further works at the container terminal. Explaining the scope of work, Siligan said, “The container terminal extension has been divided into four modules. The first is finished, while Phase II modules 2–4 will further enlarge the terminal. Depending on market demand, module 2 should get under way in the next few years.”

Turning to the extension and electrification of railway tracks in the port railway station and ÖBB's involvement, Siligan explained, “Detailed planning of developments within the port railway station are part of the study project, and right now we are in intensive discussions with ÖBB.”

In the context of the overall project, the rail link appears to be hugely important, and Siligan revealed that ÖBB had confirmed it would go ahead. He was unable to confirm the accuracy of an EU estimate of the project's total cost at EUR117,531,000. “Hard question,” he replied. “It depends on where you define the borders of the projects.”

“At the moment it appears that the money could be enough, based on prices estimated in 2011. The Masterplan Hafen Linz, part of the studies project, includes some projects not financed by the port of Linz, however.”

Reflecting on the impact this project would have on Linz' future, Siligan said, “For the next few years, until 2024, we see a major increase in transport volumes via water, rail and road. About 50% compared with 2013. We look forward to growing trade through the port of Linz, with all the benefits that will bring.” PH

**MORE INFO:** [www.hafenlinz.at](http://www.hafenlinz.at)





# Fixing America's inland waterways

Public funding for maintenance and repairs to the US inland waterway system paves the way for more private investments in ports, reports **Scott Berman**

**T**he US inland waterway system is 19,312km long, covering the upper and lower Mississippi River and its large tributaries, including the Ohio, Illinois, and Missouri rivers in the centre of the country, as well as the Columbia and Snake rivers in the Pacific Northwest. About 513 million tonnes of cargo moves through the system each year, mostly coal, petroleum products, and grain.

There is a direct connection between the health of the waterway system and ports: both inland river

ports and coastal ports near the mouth of the rivers. The health of the waterway transport system has an unequivocal bearing on the health of the terminals.

Dredging and marine infrastructure projects on the overall system "return great benefits to the nation, but we've got to get them moving", said Debra Colbert, senior vice-president of industry group Waterways Council. Inland waterway freight mover Shaver Transportation's vice-president Rob Rich and Pacific Northwest Waterways Association (PNWA) executive director Kristin Meira both agree that such projects motivate ports to construct and renovate facilities, generating jobs and economic growth.

For example, the US Army Corps of Engineers (USACE) deepened the 177km-long inland-coastal navigation channel of the lower Columbia river to 13m in 2010. Inland ports on the channel subsequently invested in an array of new and expanded grain terminals, rail, and other projects, including deepening of berths in Portland, Oregon; a USD675 million project in Vancouver, Washington; and a new USD230 million grain export facility at Longview, Washington.

Although large coastal ports handle the lion's share



## Snake River project

James Vidal/USACE

of the nation's throughput, inland waterways are a critical part of the supply chain, Colbert explained.

According to the National Waterways Foundation (NWF), a typical 15-barge tow on the inland waterway carries a load equivalent to that carried by 216 rail cars or 1,050 semi-tractor trailer trucks. The use of inland waterways cuts emissions and removes traffic from a deteriorating surface transportation system. Overall, river infrastructure enables barges to handle

the equivalent of 51 million truck trips annually, according to the NWF.

A continuing issue is the need for robust funding to maintain that channel depth, said the PNWA. Lock maintenance is another crucial issue. The overall inland waterway system includes 242 navigational locks and dams, most of which are more than 50 years old. A number of them are 70–80 years old. When structures break down, delays ensue. According to the American Society of Civil Engineers, barges laden with freight are delayed an average of 52 times each day.

An example of positive movement on the issue was recently seen on the Snake River. When a routine maintenance project at two key navigation spots was concluded in February, it was a welcome sign for commercial users of the waterway, which is part of the Columbia River system.

Among these users are grain and wood product terminals in the region, served by companies such as Shaver Transportation Company. The restored depths mean that “we’re loaded and we’re getting a lot of cargo out of there,” said Rich.

The Snake River project, by contractor American Construction Company, removed about 374,600 m<sup>3</sup>

“Dredging and infrastructure projects return great benefits”

**Debra Colbert**

*senior vice-president, Waterways Council*



Scott Beaman



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





Scott Berman

**Olmsted Lock and Dam project on the Ohio River**

of shoaling sediment to restore depths far inland, at the Washington-Idaho border, as well as at Ice Harbor lock and dam on the lower Snake river. It was the first dredging to those points in nine years.

The Snake River project exemplifies the broader issues – and opportunities – for America's entire inland waterway system. The key, as always, is money: the USACE has its hands full maintaining and operating the structures in today's funding environment. Necessary inland waterway construction, renovation, and dredging projects have a reported price tag of USD8 billion.

Lawmakers, government officials, and industry stakeholders have sought better ways to get projects done and supported provisions to do so in the Water Resources Reform and Development Act (WRRDA), which Congress passed in June 2014. The WRRDA authorised 34 marine infrastructure projects, including major navigation projects at coastal facilities, along with inland works focused on managing flood risks and restoring the environment along the waterways.

The WRRDA also authorised funding levels and sources for the largest inland waterway project currently under way: the USD3 billion Olmsted lock and dam project on the Ohio River. That project is located to the south of inland ports in Louisville, Kentucky; Cincinnati, Ohio; and Pittsburgh, Pennsylvania.

As a result of the resetting of funding formula under the WRRDA, more money will be available from the

Inland Waterways Trust Fund (IWTF) to spend on other inland waterway projects. Waterway users pay fuel taxes into the IWTF, which pays for half of the costs of new construction and large renovation work along the system. Federal funds match that amount.

Overall, WRRDA's reforms are viewed as encouraging, but industry insiders point to the large backlog of necessary projects, while authorising projects is different from appropriating money to actually fund them.

There have been both positive and negative developments on the policy front. In December 2014, waterway users supported paying more into IWTF to help finance needed projects and Congress passed legislation accordingly. That was followed by a setback in February 2015, when the Obama administration's budget request cut USD200 million from the USACE operations and maintenance budget for coastal and inland marine infrastructure.

The budget also asked for less than the USD1.25 billion that WRRDA targeted to spend from the Harbor Maintenance Trust Fund, which is funded by a fee for coastal port users. Such issues highlight a difficult budgetary climate, the complex process by which funding for projects may come, and the need for vigilance each year.

Critics point to other work that went unfunded in the president's budget, such as a stalled project estimated to cost USD680 million to replace a lock at the Tennessee River's ageing Chickamauga dam system and a lock project in Kentucky on the Tennessee River (the Kentucky project is moving ahead with USD12 million allocated by Congress for this fiscal year). The president's budget did fund work at Olmsted, as well as on Pennsylvania's lower Monongahela lock and dam project.

Meanwhile, regular maintenance and repair projects by the USACE continues on inland waterways, including the Mississippi dredging campaigns, a project to repair erosion at Lock and Dam 25 on the Mississippi in Missouri, rehabilitation initiatives at the Emsworth and Markland dams on the Ohio River and the Dalles lock and dam on the Columbia, and the Snake dredging project.

These are positive developments, but as Meira puts it, "There's a long, long way to go." **PH**

**American Construction derricks Mukiltio and Palouse on the Snake River January 2015**



James Vidal/US Army Corps of Engineers



# Hyundai Glovis builds PCC terminal

Hyundai Motors' shipping arm to add terminal operations to portfolio, reports **Moyoun Jin**

**F**or the first time in its history, Hyundai Glovis, the logistics arm of Hyundai Motor Group, is going to construct a dedicated terminal for pure car carriers (PCCs).

The terminal will be built in the port of Pyeongtaek-Dangjin on the western coast of the Korean Peninsula. Pyeongtaek-Dangjin's location southwest of Seoul makes it the gateway to the metropolitan area and its proximity to China means it has the potential to handle more cargo. It is also one of the most central districts in the Yellow Sea Free Economic Zone.

Berth 1 at the port, controlled by Pyeongtaek Regional Oceans & Fisheries Administration, will be developed as Hyundai Glovis's PCC terminal.

The company has submitted a plan, including the construction schedule and safety design to the administration. The construction will be completed by the end of 2017 with a KRW72 billion (USD65 million) investment. With this investment, Hyundai Glovis will add terminal operations to its existing marine transport business portfolio, meaning the entire vehicle supply chain will feature in the company's business.

A 50,000-tonne pure car and truck carrier (PCTC) carrying up to 8,000 cars can be docked at the terminal, which will cover an area of 153,000 m<sup>2</sup>. The berth length is 315 m, making it the longest PCTC berth in South Korea upon completion.

Hyundai Glovis told *P&H*, "A wider wall will make the docking of large PCTCs safer."

Hyundai Glovis will oversee all terminal operations, from loading and unloading to security and maintenance. This means it will be the first time the company has taken charge of the loading and unloading of the vehicles it ships in South Korea. This is in line with a corporate strategy of becoming one of the leading shipping companies in the world.

At present, Hyundai Glovis mostly exports Hyundai cars from the South Korean port of Ulsan, where Hyundai Motor Group has a plant.

*IHS Maritime's* Sea-web data shows Hyundai Glovis operates 40 PCTCs, both chartered-in and owned. The company told *P&H* it had ambitions of growing as a shipping company in its own right and it has been diversifying into oil tankers and dry bulk too.

It expects the new terminal to handle 400,000 cars/year and generate annual sales of about KRW21 billion

from operations. About 60% of those sales are expected to be to non-affiliated companies.

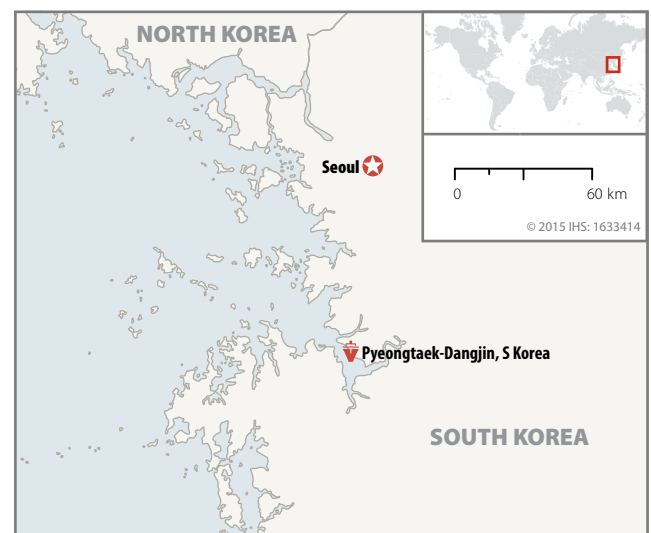
Accordingly, the company plans an aggressive campaign to secure business, including vehicle imports from Europe and the United States. Based on its plan, exported cars will use the whole logistics service system on offer, including overland-port-ocean transport. Moreover, imports and exports of heavy equipment such as excavators and forklifts will be possible at the terminal, as these are also considered roll-on/roll-off (ro-ro) cargo.

"Due to this, we expect to generate more sales from domestic and foreign heavy equipment owners," said Hyundai Glovis. Its CEO, Kim Kyung-bae, explained, "With the construction of the dedicated terminal for PCTCs, we will be more efficient in providing logistics services to connect overland transportation to ocean transportation. By operating the terminal, we will provide better service with our customers."

Pyeongtaek-Dangjin currently has car terminals at four berths. The port needs more PCTC terminals to handle the rapid growth in car exports and imports. It handled 1.45 million cars in 2013 and 1.51 million in 2014.

Hyundai Glovis posted a KRW120.65 billion (USD112.78 million) profit for first quarter of 2015, about the same figure as last year. True Friend Korea Investment & Securities analysts Yun Hee-do and Lee Chang-won estimate that within Hyundai Glovis, its international logistics unit led sales growth, with a year-on-year rise of 8.3% in the first quarter of 2015. The unit is responsible for 43% of company sales.

International logistics includes PCTCs, container forwarding, and bulk shipping. Business from third-party (non-Hyundai Motors cargo) logistics has been increasing steadily at each of these divisions. For the transport of completely knocked-down vehicles, sales are expected to remain steady because of assured cargoes from Hyundai Glovis's parent company. **PH**







Port of Grays Harbor

# Out of the shadows

Grays Harbor in Washington State is moving quickly from backwater port to critical export hub, reports **John Gallagher**

**Aerial view of Grays Harbor, which is operating in high gear thanks to auto exports**

Seven years ago the Port of Grays Harbor in Aberdeen, Washington, appeared to have more in common with a wildlife sanctuary than with a hub for international trade.

In 2008 the Pacific Northwest port handled only 2,500 tonnes of general cargo. That was before terminal operator and vessel loading services company Pasha Stevedoring & Terminals (PS&T), Norwegian ro-ro vessel operator Siem Car Carriers, and automotive giant Chrysler saw an export opportunity.

"When we got there we were feeding deer and geese cracked corn at our doorstep at the terminal because that was the only thing there," PS&T vice president Jeff Burgin told *Ports & Harbors*.

However, Burgin was soon able to show potential customers that Aberdeen could compete with the larger ports of Seattle and Tacoma on transit times because of its proximity to the open sea.

Through partnering with Praxis Logistics and Siem Car Carriers, the port's automotive exports went from 20,000 five years ago to about 120,000 units per year today. "Volumes started building in the second or third year and everyone saw the value of the service, Burgin said. "The railroads started getting into it too, and it just took off."

The business helped propel the port to 300% growth over that period, making it the fastest growing port on the US West Coast. More than 95% of the port's maritime operations are related to exports. The increased

business has also created more than 120 full-time jobs for workers at PS&T, its affiliate Pasha Automotive Services, and local dockworkers.

But it has taken the Port of Grays Harbor a long time to get this far. Founded in 1911, it is one of Washington State's oldest port districts and is the state's closest deepwater port to the Pacific Ocean: located midway between Seattle and Portland it is less than 1.5 hours from open sea. It operates four deepwater marine terminals in addition to the Westport fishing marina, Bowerman Airport, and several industrial parks in the region.

Over the past several years private companies have invested more than US\$200 million in storage and shipping facilities for autos, grain, liquid bulk, logs, and wood chips for export. A US\$18 million expansion of the port's rail and marine terminal complex was completed in 2012. The US' largest soybean meal cooperative, Ag Processing, expanded its facilities to include eight storage silos for dry agricultural products. The expansion helped soybean meal and other dry bulk shipments hit a record 1.3 million tonnes in 2012.

Terminal 4, the port's main cargo terminal, has more than 9,290 m<sup>2</sup> (100,000 sq ft) of covered warehouse space, a rail loop with on-dock rail access, and 50 ha (120 acres) of paved cargo yard. The port is served by two major US western railroads: BNSF and Union Pacific.

Siem Car Carriers' contract with Chrysler brings rail-delivered automobiles from Detroit, which are discharged at the port and loaded onto vessels bound for China. A smaller number of automobiles from GM are moved on a coastwise route from Mexico, discharged at Grays Harbor, and loaded on along with the Chrysler units for export to Asia.

The port, vessel operators, and their customers aren't the only ones who want to see growth and expansion continue at Grays Harbor. The US Army Corps of Engineers, which contracts out dredging for port deepening projects, allotted US\$8 million in its fiscal year 2015 (FY2015) work plan to deepen the Grays Harbor navigation channel to its fully authorized depth of 11.6 m (38 ft). President Barack Obama's FY2016 budget included US\$7 million to complete the deepening. The port, as the local sponsor, is working with the State of Washington to secure the cost-share of US\$4.6 million for the project.

The channel deepening, which is expected to begin in the third quarter, will benefit particularly the port's agriculture business. "Grain ships need the deeper draughts more than ro-ro vessels," Burgin said, who noted that the port recorded agriculture exports of about 1.6 million tonnes last year, which could soon increase to 2 million tonnes once channel deepening is completed.

Grays Harbor executive director Gary Nelson summed up: "Deeper draught will serve our customers, our community and our country well into the future as we continue to provide a crucial link between United States growers and producers and international market." **PH**

# Bigger and faster

With one of the largest and iconic maritime projects of recent times due to be completed in August, **Bert Visser** reports on the work taking place on the New Suez Canal in Egypt

## The disposal basin for Lot 5

Bert Visser

On 5 August 2014, the starting signal was given for the New Suez Canal project, which consists of doubling the existing canal's width for almost half of its total length, some 72 km.

With more than 200M m<sup>3</sup> of dry earth to be moved and 250M m<sup>3</sup> of dredged sediment to be shifted, the project was originally scheduled to be completed within five years. The Suez Canal Authority (SCA) engineers then estimated three years, before the current president of Egypt, Abdel Fattah el-Sisi, stipulated that works had to be completed within one year, with the first commercial ships able to pass through the new canal on 5 August 2015.

In its existing state, the Suez Canal can only handle single-lane traffic, organised in convoys. There are just two places where ships sailing in one direction can anchor and wait for a convoy sailing in the opposite direction to pass. These two are the Great Bitter Lake, located about 100km south of the Mediterranean

entrance at Port Said; and the Ballah western by-pass – a stretch about 50–60km south of Port Said, which, due to its limited size, can only be used by smaller and unloaded ships. As a result, a southbound convoy has an average transition time of 18 hours, about half of which is waiting time.

The New Suez Canal project will allow both north and southbound convoys to pass each other unhindered in the 72km section of the canal that is currently being doubled. This will shorten southbound convoy transit time down to 11 hours. These altered timings will need to be factored in by departure and arrival ports since it could affect or change berth occupancies. Daily average number of transiting vessels will increase from 49 to 97, according to the SCA.

The widening should significantly increase the canal's competitiveness with respect to alternative navigation routes, mainly between Europe and Asia Pacific. Revenues are estimated to more than double, which would positively contribute to Egypt's national income of hard currencies. The New Suez Canal is





also expected to create more job opportunities in the region, not just directly, but also through the expected increase of other economic activities.

The 72km-long project has been divided into six manageable lots:

- The Ballah western by-pass – approximately 10km long – will be upgraded to the same depths as the main canal allowing 20m-draught Suezmax-type vessels to sail through this stretch
- Four lots (No 2–5) cover a 35km stretch near Ismailia, running from the Ballah western by-pass at the 60km mark to the Great Bitter Lake at 95km. Here, a completely new stretch of canal is being created, running parallel to the existing canal at the eastern side. Some 200M m<sup>3</sup> of dry earth and 180M m<sup>3</sup> of dredging will create a new 24m-deep by 300 m-wide canal, plus two strategically located service channels and two cross channels that connect the existing canal to the new part. These serve both as an access to the new canal during the construction stage – allowing dredgers to work simultaneously at several locations, not just the outer canal ends – and for service vessels once the new canal is in use.
- Lot No 6 covers the complete 27km length of the Great Bitter Lake. There already exists a 14m-deep lateral channel on the western side that is to be deepened and widened. Some 40M m<sup>3</sup> of material will be dredged here.

The first step was for the Egyptian Army's engineering department to remove more than

200M m<sup>3</sup> of dry earth from Lots 2–5. A huge fleet of dry earth moving equipment was mobilised from all over the country, resulting in extraordinary achievements – over 1M m<sup>3</sup>/day and a record time of just seven months to complete the dry earth works.

In the meantime, tendering has started for the dredging works. Those interested in bidding for one or more contracts were under a lot of pressure in August and September 2014; submission date was set for 20 September and a separate bid had to be submitted for each lot.

Tender results were made public at the end of September, and just two weeks later, by mid-October the contracts for five of the six lots were awarded to two different consortia.

Lot 1 went to the SCA, which has its own dredging fleet. Lots 2–5 were all awarded to Challenge Consortium which consists of NMDC from Abu Dhabi, Boskalis and Van Oord from the Netherlands, and Jan De Nul from Belgium. Lot 6 was awarded to a consortium made up of DEME from Belgium and Great Lakes Dredge & Dock Company (GLDD) from the United States.

In a very short period, cutter section dredgers (CSDs) were mobilised from all around the world. These included NMDC's 10,919kW *Al Mirfa*, 9,800kW *Al Hamra* and *Al Khatem*, and 7,800kW *Umm Al Anber*; Jan De Nul's 27,240kW *JFJ De Nul*, 23,540kW triplets *Ibn Battuta*, *Zheng He* and *Fernão de Magalhães*, plus 8,330kW *Hondius* and *Kaerius*; Van Oord's 24,702kW



Bert Visser

**Above the  
cutterhead aboard  
Al Jarraf**

Artemis, 10,660kW HAM 218, 8,539kW Hercules, and 6,425kW Zeeland II; Boskalis mobilised 15,800kW Phoenix I, 12,904kW Cyrus II, 9,147kW Edax, and 5,128kW Jokra. However, an even greater challenge lay in mobilising all the auxiliary equipment, and organising the logistics and installation of everything needed to allow the dredgers to get to work. With modern self-propelled CSDs, mobilisation can be organised and carried out quickly, depending on distance to the project area. However, other dredgers need a whole range of equipment and support tools around them before they can start operations. First of all, there are the pipelines, both for on-land and floating; these need to be mobilised then installed on site. And, since dredging involves a lot of wear and tear on equipment, a large workshop had to be set up, suitable for carrying out repair jobs large or small on all kinds of equipment, components, and parts.

All material dredged by the CSDs is pumped ashore and stored in one of the 10 disposal basins (DBs) located on both sides of the new canal.

Each lot is managed by one of the four consortium partners: Lot 2 – Jan De Nul; Lot 3 – Boskalis; Lot 4 – Van Oord; and Lot 5 – NMDC. The DBs within each lot are also managed by the respective companies. However, all dredgers are part of a central consortium pool and a deployment location is determined on technical and operational dredging factors and not on the ownership of a specific dredger. There are two guiding elements that decide the location to which a CSD is deployed – firstly the soil conditions, as some spots require more powerful dredgers, and secondly the general strategy of work.

First, the relatively smaller CSDs are put to work in a section and dredge to a depth of about 8m, in three cuts over the width of the canal. This creates room for the larger dredgers which work in two stages, the first to a depth of about 16m and then one to a final (cutting) depth of 25m. These larger dredgers cover the width of the canal in one swing. Dredging to 25m

rather than the required 24m allows for inevitable spillage and permits access to trailing suction hopper dredgers (TSHDs).

Back at the start of the project, the consortium considered deploying TSHDs alongside CSDs to boost total dredging capacity. Soil conditions in Lot 4 were such that TSHDs were expected to be the most efficient. While most of the material is hard-packed sand, plus some patches of loose sand, there are disrupting layers of hard clay spots of claystone, limestone and sandstone scattered along the project site.

In contrast, the adjacent Lot 5 had the largest amount of difficult-to-dredge material, mainly consisting of hard clay. Therefore, the consortium has put two of its most powerful CSDs to work in this lot.

A further complication is an irrigation canal bringing fresh water from Nile River to agricultural areas east of the Suez Canal. It crosses both the existing canal by means of a tunnel and the projected New Suez Canal. A further tunnel – constructed by local contractors in co-operation with German specialised tunnelling company Herrenknecht AG – is needed under the new canal before the final cut can be made.

At the time of P&H's visit, some 82M m<sup>3</sup> of the 180M m<sup>3</sup> had already been dredged and stored in the DBs and this section is expected to be ready on time.

The DEME/GLDD consortium is responsible for carrying out dredging works at Lot 6, which runs all through the Great Bitter Lake on a 75:25 ratio. Typical kinds of soil in this lot to be dredged include stiff clay, quartz sand, sandstone layers, gypsum and halite (rock salt). This part of the New Suez Canal project needs a wide variety of dredging, transport, and disposal techniques.

In total, 10 dredgers were deployed here, mobilised from as far as Argentina, the Siberian Arctic, and Australia. DEME's dredgers are TSHDs Nile River (17,000m<sup>3</sup>), Uilenspiegel (13,700m<sup>3</sup>), Breydel (11,296 m<sup>3</sup>), and Mellina (3,309m<sup>3</sup>); and CSDs d'Aragnan (28,200kW), Al Mahaar (11,224kW), and sister vessels Al Jarraf and Amazone (both 12,860kW); while GLDD mobilised CSDs Ohio (11,690kW) and Carolina (11,646kW).

Each dredger is allocated to a specific task in one of Lot 6's five sections. Different combinations of dredging and disposal techniques are applied in each section, depending on the proximity of onshore or underwater disposal areas and the anticipated soil types. Optimal dredging equipment has been chosen based on specific disposal strategy, distance to disposal sites and soil conditions.

The DEME/GLDD consortium says execution of the dredging works is well ahead of schedule. It had reached the first milestone (11M m<sup>3</sup>) by 14 February and achieved 60% of the 40M m<sup>3</sup> total by the beginning of April this year.

The entire project looks likely to meet its target date of having the first commercial ships able to pass through the new canal on 5 August 2015. PH



# PSC detention - no need to be afraid!

**Paul Owen**, senior consultant at Regs4ships, reports on 'Guidance on Detention and Action Taken', which was recently made available on the Paris MoU website

**W**hile this is aimed at Paris MoU's inspectors, it also provides a useful insight into the criteria used to decide whether to detain. It does not herald a new approach; the criteria have been around for many years in different forms. It does, however, bring together in one document the MoU's approach when deciding what action should be taken when deficiencies are found during a port state control (PSC) inspection.

Detention is a bit like crime, the fear of it is generally greater than the reality. For example, in 2013, the detention rates (as a percentage of total inspections) in the Paris MoU, Tokyo MoU, and USCG were 3.8%, 4.6%, and 1.3% respectively. There has been a downward trend in rates over the past decade and more.

Nevertheless, a detention remains bad for business, considering the cost of the delay and possible unplanned repairs. It can also lead to loss of charter, closer attention from the flag state and insurers, and inevitably means more frequent PSC inspections, at least in the detaining MoU. The resulting loss of reputation from published results and the effect on commercial vetting rankings can be important in some sectors. Repeated detention in the Paris MoU leads to a ban, first temporary, then permanent.

While a robust PSC regime is generally acknowledged as protecting the interests of good operators by weeding out the poor ones – which gain an unfair advantage by not operating their ships to internationally agreed standards – many good operators can cite examples of detentions applied unfairly to their ships. A decision

on detention is inevitably subjective as it relies on a judgement by one or more inspectors: can the ship sail without unreasonable danger to safety, health, or the environment? There are two key elements in making that judgement fairer and more consistent.

First, there is the accountability of inspectors whereby they know that their actions can be challenged. In many jurisdictions inspectors are required to consult with senior colleagues before detaining, although this is not universal and in some cases not practical. In addition, nearly all port states have their own national appeal mechanism, although as these mostly have a legal basis, they vary widely in their 'user-friendliness'; some of the MoUs publish summaries of the appeal mechanisms in their member states. The Paris MoU also has a review panel that considers detentions disputed by the flag state and/or recognised organisation.

Then there is the application of agreed criteria such as those produced by the Paris MoU. The inspectors have to consider whether the deficiencies are sufficiently serious to check that they have been rectified before the ship sails. Inspectors must also ask themselves whether the ship can still fulfil the essential operations during the next voyage. The guidance lists a series of assessments – for example, can the ship and crew navigate safely; fight fires if necessary; provide safe and healthy conditions; or prevent pollution? If the answer is 'no', then, taking into account all deficiencies found, the ship will be strongly considered for detention. A single defective fire flap would not prevent a ship from fighting a fire if other equipment was in good order, but seized main engine room vents probably would, particularly with a fixed gas fire-extinguishing system.

The guidance goes on to list deficiencies that are considered serious enough to warrant detention. This list is not exhaustive, and ultimately inspectors should make a judgement based on the criteria. However, it does remove some subjectivity and thereby has the benefit of encouraging consistency. On the other hand it risks discouraging inspectors from applying their professional judgement to the situation because they feel that if it is on the list it can't be challenged, and vice versa.

The Paris MoU criteria, and those used in other MoUs, mirror those contained in the International Maritime Organization (IMO) resolution on PSC – Resolution A.1052(27). The International Labour Organization's (ILO)'s guidelines for port state control under Maritime Labour Convention (MLC) 2006 includes examples of detainable deficiencies and gives further guidance specific to the convention.

If the international safety management and maintenance systems are robust, PSC detention should not be a problem for most companies. It pays to be familiar with the criteria inspectors apply, or at least should be applying, to the deficiencies they may find on board. **PH**

## Further reading

- Paris MoU 'Guidance on detention and action taken': available at <https://www.parismou.org> under 'Publications', 'PSC insp guidelines', 'Information on detention and action taken'
- IMO Resolution A.1052(27) 'Procedures on port state control' – Appendix 2 'Guidelines for the detention of ships'
- ILO 'Guidelines for port state control officers carrying out inspections under the Maritime Labour Convention, 2006' Page 98 Para 5.2.
- Paris MoU 'Appeal procedure' under 'Inspections and risk'



**MORE INFO:** [www.regs4ships.com](http://www.regs4ships.com)



Port of Antwerp

Antwerp's new discount comes on top of an existing ESI discount

## Antwerp extends green discount



On 1 June 2015, the Port of Antwerp began awarding a further discount to seagoing ships that use alternative technology such as natural gas or onshore power to reduce emissions of particulates. The new discount comes on top of an existing discount under the WPCI Environmental Ship Index (ESI) scheme, which means in some cases that ships can benefit from a reduction in port dues of up to 30% when they call at Antwerp. The discount is being introduced for a period of three years and will be gradually reduced.

Similar to many other city ports, Antwerp and its port both suffer from high concentrations of air pollution. Shipping still makes a

significant contribution towards such pollution, mainly in the form of SOx, NOx, and particulates.

Among the regulatory initiatives to improve this situation is the introduction of standards for sulphur emissions by seagoing ships in so-called Sulphur Emission Control Areas (SECAs), which include the Baltic and North Seas and the English Channel. To meet these stricter standards, ships must either improve the quality or type of fuel used, by switching to low-sulphur marine gas oil or LNG, or install post-combustion systems, such as exhaust gas scrubbers, to reduce emissions to acceptable levels.

Most shipping companies have

let it be known that in the short term they prefer to use low-sulphur fuels to comply with the stricter sulphur emission standards. However, the use of LNG or scrubbers offers better environmental performance than low-sulphur fuel, since in addition to reducing sulphur emissions it also cuts other emissions such as particulates and NO<sub>2</sub>.

Ships had been able to claim the discount since 1 June if they can demonstrate that they either make effective use of scrubbers (in closed mode) or are powered by LNG for a period of at least 24 hours before they call at the Port of Antwerp. Ships powered by LNG can receive a discount of

20%, while those that make use of closed scrubbers can get a discount of 15%.

The percentages will be gradually reduced from 2016 as a means of rewarding early adopters who make the necessary investment now. The percentages for 2016 are set at 15% and 10%, respectively, and for 2017 they will be 10% and 5%.

In addition to the recently introduced particulates discount, more environment-friendly ships at Antwerp have benefited from the ESI discount for some time now. The ESI is based on a system of credits ranging from 0–100 that ships can earn for having environmental performance better than required by the regulations for NOx, SOx and CO<sub>2</sub>.

Ships that obtain 31 or more credits can have their bill for port dues reduced by 10%. The ESI system is currently supported by 36 ports worldwide and so far has benefited 3,101 ships.

### Notable numbers



# 30%

Antwerp's maximum 'green' discount in port dues

# 2,013

ships are 10% less fuel-efficient than those built in 1990



# Increased pirate attacks in Southeast Asia

Overall levels of piracy remain around the same levels as *Dr Dave Sloggett* reports. However, the geographic distribution of the events reported to the International Maritime Bureau (IMB) in the first four months of the year increasingly shows a focus on Southeast Asia.

Depending on where the boundary for the region is defined, it is possible to argue that 78.5% of the 94 reports received by the IMB up until 15 May emanate from an area bounded in the west by India and in the east by the Philippines.

Last year a total of 140 out of the total of 245 incidents (57%) reported to the IMB took place in Southeast Asian waters.

While many of these attacks barely meet the criteria to be called piracy, those that do are often conducted by ruthless people with little regard for human life and maritime safety.

The targets are often small coastal vessels plying their trade moving petroleum products around the area from the main distribution sites in what is a hub and spoke architecture.

On average at present one of these coastal tankers is being hijacked every two weeks. This is a rate not that dissimilar from the days when piracy in Southeast Asia was last at its peak around six years ago.

In the year since April 2014 the IMB has recorded at least 23 hijackings in Southeast Asia. Six of these have taken place in the last three months. Five of these were small coastal tankers. The other vessel was a tug. The most recent incident occurred on 15 May 2015.

In this event more than 10 pirates armed with pistols, knives, and an axe launched an attack from two fishing vessels and four other small vessels on a product



## Pirate attacks

Pattern of pirate attacks in Southeast Asia until 15 May 2015

<b>Indonesia</b>	34
<b>Vietnam</b>	10
<b>Malaya</b>	9
<b>Bangladesh</b>	7
<b>Singapore Straits</b>	5
<b>India</b>	3
<b>Malacca Strait</b>	2
<b>Philippines</b>	2
<b>Thailand</b>	1
<b>Total</b>	73

Source: IMB

tanker that was under way around 64nm northwest of Tanjung Sirik Lighthouse off Sarawak in Malaysia. All crew members were taken hostage while the cargo was transferred to another vessel. When this was complete the pirates escaped, after which crew members freed themselves. Two

weeks earlier in a similar event pirates hijacked a vessel carrying gasoil in the Strait of Malacca at a location 11nm to the southeast of Tanjung Tuan in Malaysia. This time the attack was carried out by eight people armed with guns and long knives.

In what was a repeat of the format of past attacks the cargo was offloaded and then the crew's belongings were ransacked before the pirates left. Malaysian authorities are investigating both cases. As a result of past investigations, one group of hijacking suspects is awaiting trial.

Commenting on the increase in attacks in Southeast Asia, Pottengal Mukundan, the director of IMB said, "The frequency of these hijackings in Southeast Asia is an increasing cause for concern. There is a risk that the attacks and violence could increase if left unabated."

## ECSA: Stiffen port regulation

The European Community Shipowner Association (ECSA) has appealed to the European Parliament to stiffen up the European Commission's proposed EU port services regulation, notably by re-including proposals to open up cargo-handling and passenger services to competition.

The commission has dropped these two service categories from its latest proposed regulation – its third attempt to pass legislation

on port services and financial procedures in recent years. It is thought to have wanted to avoid potential conflict with port workers' unions, but ECSA argues that the two categories should be included anyway.

"Cargo-handling and passenger services, absent from the original proposal, are the most significant part of port call costs," it said. "They should be included in and covered by an EU ports regulation."

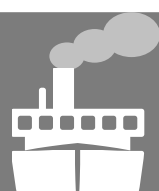
ECSA also warns MEPs against attempting to remove pilotage, towage, and mooring from the scope of the legislation. They should not be excluded for safety or public-service reasons, which the bill already provided for, it said.

ECSA said that it was also in favour of the introduction of financial transparency rules in EU ports, which it said should be the first step to rules on state aid in the port sector.

"We understand the commission's wariness and caution, but remain convinced

that an EU ports reform package should be more ambitious than the current proposal, which only addresses some of the real problems faced by port users in EU ports," said ECSA secretary-general Patrick Verhoeven.

ECSA told *P&H* that the parliament's transport committee could vote on the proposal in mid-September after having discussed a report on the regulation from rapporteur Knut Fleckenstein during the summer. Parliament could then vote on it before the end of this year.



# 100,000

tonnes/year  
green CO<sub>2</sub> reused  
in Ghent Port



# 2

years to bring the  
Norwegian Cargo Ferry  
project to fruition



Migrants rescued by the Turkish Coast Guard earlier this year

## UN urges SE Asia to obey SAR law

International shipping players and the United Nations have called on Southeast Asian governments to carry out their search and rescue obligations under international law.

Speaking to *P&H*, secretary-general of the International Chamber of Shipping Peter Hinchliffe said there are significant problems and solutions for migrant rescue further afield from Europe, where attention is currently focused on the issue.

Disembarkation of migrants has been refused by some Southeast Asian countries, leaving several thousand people in the Andaman Sea and Strait of Malacca. The situation has become untenable for commercial ships called on to rescue migrants in the region.

Hinchliffe said that international shipping needs a mechanism that will hold “coastal states to their Search and Rescue (SAR) obligations in international law”.

“The provision of a port of disembarkation for ships that have rescued migrants remains paramount. The situation in the Malacca Strait, and off Thailand and Indonesia, where migrant boats are not being allowed in must be avoided,” he said.

The problem was officially highlighted to the global community on 14 May by UN secretary-general Ban Ki-moon, who issued a statement calling on Southeast Asian governments “to ensure that the obligation of rescue at sea is upheld and the prohibition on refoulement

[forcible return of refugees to countries where they could face persecution] is maintained”.

He urged those governments “to facilitate timely disembarkation and keep their borders and ports open in order to help the vulnerable people who are in need”. Meanwhile in Europe, the long-awaited increase in funding for border patrol operation Triton has fallen short of what was promised in April when a tripling of the original budget – EUR34.8M (\$39.12M) was announced.

However, Hinchliffe said that operational scope was essential and more funding alone would not solve the problem. “The increased allocation of funds to Triton is part of the mitigation of the situation. However, no matter

how well-funded, Triton is useless if it is operating in the wrong area. It units need to be deployed close to the Libyan coast where most migrants are abandoned by the traffickers,” he added.

“More units in the right place will help to unburden merchant ships,” he said, conceding that merchant ships “will almost inevitably provide first responder support in many cases, as the distribution of merchant ships is wider than the rescue ships.”

Hinchliffe praised the work of private enterprise Migrant Offshore Aid Station and its new partnership with international medical charity Médecins Sans Frontières. “The joint operation between MOAS and MSF is already doing useful work and is to be applauded.”

### Notable numbers



\$100M

Nippon Foundation endowment to support the World Maritime University



1st

world's first green-ship equipment test certification centre opened in Korea



# US weighs in on congestion

The US Federal Maritime Commission (FMC) is trying to help ports tackle waterfront congestion to avoid the type of gridlock that could cripple the US economy.

As a result of a series of port congestion forums hosted by the FMC in 2014 – as well as the aftermath of the worst congestion on the US West Coast in a decade – the FMC issued in April the first in a series of reports it plans to release on dealing with supply chain flow.

The report, “Rules, Rates, and Practices Relating to Detention, Demurrage, and Free Time for Containerized Imports and Exports Moving Through Selected United States Ports” focuses on fees charged by vessel operators at large container terminals around the country that are used to keep cargo from clogging up port operations.

In addition to actions taken by vessel operators, the FMC, which as of 1 June was still seeking comments from stakeholders on the report, suggested possible actions port authorities can take to reduce congestion.

The report noted that port authorities – both landlord ports and those that operate their own terminals – continue to publish

terminal schedules. “It appears they may consider, either individually or collectively through agreements filed with the FMC, adding requirements for terminal productivity, incentives or measurements of terminal productivity that include container velocity from dock to gate,” the report noted.

It pointed out that some public port authorities may determine they lack the authority to unilaterally extend demurrage free time.

“Doing so would have reduced the demurrage charges collected by [marine terminal operators] on behalf of [vessel operators]; it would not have appeared to have any impact on detention fees,” the FMC stated.

The report emphasised steps that some port authorities are already taking to relieve congestion: offering lots for storing empty containers, purchasing chassis and creating chassis pools, and expanding infrastructure.

US Maritime Administration (MarAd) administrator Paul Jaenichen, who is working with the FMC on battling port congestion, believes ship sizes and carrier cargo-sharing alliances are

major contributors to the crisis.

“What we’re seeing is that the way container ships are loaded in Singapore, for example, doesn’t necessarily support offloading operations in the United States – they’re just loaded on the vessel as they come in,” Jaenichen told a forum at the National Press Club in Washington, DC, in May.

“Where [containers] end up with the customer here in the US actually affects the efficiency of our ports.”

The World Shipping Council (WSC), which represents box

carriers, asserts that if a port facility does not have enough space to handle forecast cargo volumes, “it will need to develop alternative solutions, such as shuttling import containers to holding facilities outside the port, or implementing more sophisticated container handling technology within its existing footprint,” the group stated.

WSC cautioned, “With economic growth comes an increased volume of containerised cargo. Whether 10,000 teu is unloaded into a port facility from one ship or two consecutive 5,000teu ships, the facility will need to be able to efficiently handle 10,000 teu.”

“Where containers end up in the US actually affects the efficiency of our ports”

**Paul Jaenichen** Administrator, US Maritime Administration



Port of Los Angeles

Container operations at the Port of Los Angeles nearly hit gridlock in February



5

MOU between Maritime & Port Authority of Singapore and A\*STAR calls for this many years of maritime R&D co-operation



3

LNG export terminals in the Port of Gladstone serviced by five support tugs

# Congratulations to this year's winners

Every other year at its World Ports Conference, IAPH awards five prizes. Three awards: Port Communication, Port Environment, and Information Technology (IT), are given to a port, while the Akiyama Prize and Hamburg Open Award are both given to individuals for their essays. A total of 44 entries were submitted for the five awards. All the award winning essays and papers are posted on IAPH's official website.

## IAPH Essay Contest

A panel of judges established within the **Communication/Community Relations Committee**, headed by chair **Arley M Baker**, senior director, communications at Port of Los Angeles, USA.



### Akiyama Award

Named after Toru Akiyama, one of IAPH's founding fathers, this award is offered to young staff working for an IAPH regular member in a developing country.

**Sujeewa Liyanage**, junior manager at Sri Lanka Ports Authority, Sri Lanka, won the prize for his paper, *Colombo, the Golden Gate to the South Asia Ready to Welcome Mega Carriers*.

In his paper, Liyanage briefly discussed why shipping lines have deployed bigger ships over the last decade and identified the foremost impact of this on shipping and logistics networks. Using his own port's experiences, he described the challenges faced and how these were converted into 'a golden opportunity; to grow as a hub.

Liyanage received a certificate, a cash award of USD1,000, an international flight to and from Hamburg, hotel accommodation, and conference registration fee. This award is sponsored by the Japanese Foundation for IAPH.

This year, entrants were given a choice of three themes for their essay topic: 'What do you see as the major impact on world trade and shipping as a result of the growing deployment of larger container vessels?'; 'What strategies is your port using to engage with your communities to facilitate port operations adjacent to populated areas?'; and 'What initiatives have you introduced at your port using to respond to the change that increasing innovations in port technology are having on traditional skill sets of port workers?'

### Hamburg Open Award

In commemoration of the IAPH World Ports Conference, this award is open to any IAPH member (regular or associate) in any country (developing or developed).

**Stephanie Bowman**, commissioner at Port of Seattle and **Clare Petrich**, commissioner at Port of Tacoma won the award for their joint essay, *Innovative Response to Big Ship Growth: Creating a Seaport Alliance*. The paper addressed the major impact on world trade and shipping as a result of the growing deployment of larger container vessels, how their ports responded, and how both women personally contributed to ensuring their ports were prepared.

## Port Communications Award

In addition to the Essay Contest, the **Communication and Community Relations Committee** is responsible for the evaluation and selection of the winners of this award. It is open to any IAPH member (regular or associate) in any country.



### Gold

**Port of Gothenburg, Sweden** took the top prize in this category for its paper, *Made in Sweden*

This is a web initiative made by the Port of Gothenburg. It showcases the transport chain for various Swedish export achievements and focuses on successful Swedish export companies and describes how their products are transported from small Swedish locations out into the world, including major cities such as Tokyo and New York. With some 90% of foreign trade



**Akiyama Award:** Sujeewa Liyanage (center), junior manager at Sri Lanka Ports Authority, Sri Lanka



**Port Communications Award Gold:** Cecilia Carlsson (center), vice president communications, Port of Gothenburg, Sweden



taking place by sea, logistics and the ports are essential to Sweden's industry. By following the path of a product from manufacturing through to the end-consumer in an enjoyable, interactive way, it seeks to increase understanding of the importance of logistics to society as a whole.

## Silver

**Ports of Stockholm, Sweden** came second in this category for its paper, *Social media: Ports of Stockholm*

## Bronze

The bronze award was given to **Port of Longview, U.S.A.** for its paper, *Becoming Washington's Working Port - The Port of Longview's Branding Journey leads them back to their roots*

# Port Environment Award

The panel of judges for this award were established within the Port Environment Committee, which was chaired by Dato' Captain David Padman from Port Klang Authority, Malaysia. This award is open to any IAPH member (regular or associate) in any country.



## Gold

**Port of Santa Marta, Colombia** took the top prize in this category for its paper, *Environmental and Operational Benefits from the Technological Renovation of the Port Authority of Santa Marta*

The Port Society of Santa Marta is made up of three companies handling different types of cargo: coal, containers, and bulk. The port has made significant investments to upgrading the terminal and subsidiaries and, by implementing clean technologies, has generated significant operating efficiencies and reduced pollution and consumption of resources while increasing social benefits, generating employment, and creating a healthy environment for communities.

## Silver

**JadeWeserPort Realisierungs GmbH & Co. KG**, Germany came second in this category for its paper, *Langwarder Groden (coherence zone for a deep-water port)*



**Port Environment Award Gold:**

Mauricio Suarez Ramirez (right), CEO, Port of Santa Marta, Colombia

## Bronze

The bronze award was given to **bremenports GmbH & Co. KG, Germany** for its paper, *Innovative new building of a LNG-powered dredging barge in the ports of Bremen and Bremerhaven*

# IT Award

The panel of judges were established within the Trade Facilitation & Port Community System Committee, headed by chair Frédéric Dagnet from Grand Port Maritime de Marseille, France. This award is open to any IAPH member (regular or associate) in any country.



## Gold

**Port of Beirut, Lebanon** took the top prize in this category for its paper, *Port of Beirut Operations and Management System (POMS)*

Both growth in tonnage handling and a new port strategy in response to an unstable political situation made extensive introduction of sustainable IT infrastructure and port management software urgently necessary for the port. As a logical consequence, POMS was designed and put into operation. As a result, it created administrative excellence, cleared traffic disruptions, significantly decreased both waiting times and pollution, decreased employee turnover ratio by 75%, increased operational profit by 55%, and made it unnecessary for customers to be physically at the port.

## Silver

**PORTIC, Barcelona, Spain** came second in this category for its paper, *From a Paperless Port towards a Smart Port*

## Bronze

The bronze award was given to **JadeWeserPort Realisierungs GmbH & Co. KG, Germany** for its paper, *SMART SC - eBusiness standardization in the maritime supply chain*



**IT Award Gold:**

Rafy Ashkarian, chief financial officer (right), Port of Beirut, Lebanon

# IAPH resolves...

IAPH members adopted two new resolutions in Hamburg this year: **urging ratification of the Hong Kong Convention, and establishing the IAPH Women's Forum Scholarship.** The two join previously agreed conventions.

**Resolution on urging ratification of the Hong Kong**

**Convention - adopted on 4 June 2015 at the 29<sup>th</sup> IAPH World Ports Conference in Hamburg, Germany.**

Being aware that ship recycling is an essential process for the maritime industry from the perspective of enhancing safety and efficiency which significance is

even higher through the acceleration of fleet renewals which is taking place at the moment.

Being further aware that the scrapping of the majority of ships is taking place in only a few states under dangerous and unhealthy working conditions and with affecting serious impact on maritime environment.

Recognising that, in close co-operation with the ILO and the

parties to the Basel Convention, the states in the IMO adopted the Hong Kong Convention on 15 May 2009, intending to materialise safe and healthy working conditions for recycling workers by eliminating environmental impact from ship recycling.

Recognising further that the Hong Kong Convention imposes strict legislative requirements both to ship owners and recycling yards.

## Officers/Executive Committee Members for 2015/2017

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Deputy Managing Director  
Autoritat Portuària de Barcelona, Spain

### Vice Presidents

#### 1st Vice President for Americas Region

**Geir-Eilif Kalhagen**  
CEO  
Port of Longview, U.S.A.

#### 2nd Vice President for Asia/Oceania Region

**Richard Joost LINO**  
President Director  
Indonesia Port Corporation II, Indonesia

#### 3rd Vice President for Africa/Europe Region

**Hien Sié**  
Managing Director,  
Abidjan Port Authority, Côte d'Ivoire

### Immediate Past President

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CEO and Director  
Port Authority of New South Wales, Australia

### Conference Vice President

**Shanti Puruhita**  
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Indonesia Port Corporation II, Indonesia

### Secretary General

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Secretary General, IAPH

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Point Lisas Industrial Port Development Corp., Ltd., Trinidad and Tobago

#### Asia/Oceania Region (Eight members)

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Director General of Ports and Harbours Bureau  
Ministry of Oceans and Fisheries, Korea

#### Africa/Europe Region (Six members)

**Richard Anamoo**  
Director General  
Ghana Ports and Harbours Authority, Ghana

### Continued: Executive Committee Members

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**Curtis J. Foltz**  
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Georgia Ports Authority, U.S.A.

**Alberto Díaz**  
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National Port Administration, Uruguay

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General Manager, Corporate Policy Department  
Yokohama Port Corporation, Japan

**Martin Byrne**  
CEO  
Port Nelson Ltd., New Zealand

**LE Cong Minh**  
Director General  
Saigon Port Company Ltd, Vietnam

**Abdul Wahab Al Diwani**  
Director, UAE Marine Inspection and Survey Dept.  
National Transport Authority, Abu Dhabi U.A.E.

**David Padman**  
General Manager  
Port Klang Authority, Malaysia

**Tai-Hsin Lee**  
President  
Taiwan International Ports Corp. Ltd., China

#### Africa/Europe Region (Six members)

**Dov Frohlinger**  
COO  
Israel Ports Development and Assets Co., Ltd., Israel

**Bisey Uirab**  
CEO  
Namibian Ports Authority (NAMPORT), Namibia

**Leonids Loginovs**  
CEO  
Freeport of Riga Authority, Latvia

**Eddy Bruyninckx**  
CEO  
Antwerp Port Authority, Belgium

**Javier Gesé Aperte**  
Deputy Director, cargo handling and passenger services  
Puertos del Estado, Spain

## Membership notes

Welcome to a new member

### Associate member

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Representative: Michael H. Trent, Managing Director  
Nature of Business Activities: Consultancy supporting the needs of Port Authorities, Terminal Operators, Ship owners, Security and Safety Officers and related port stakeholders and government bodies.



Acknowledging that the Hong Kong Convention is left ineffective with getting only few ratifications, as many other states have concerns about future capacities of ship recycling yards which are able to comply with the requirements of the Hong Kong Convention.

Taking in mind further that the EU implemented its own regulation on ship recycling on 30 December 2013, applying both onto ships flying EU member states' flags and also other ships calling at EU states' ports, with the aim to come to the early implementation of the Hong Kong Convention in the EU.

Noting that the EU is now in the process of assessing conditions of recycling facilities for listing on the European List as their approved facilities complying with EU requirements.

On a proposal duly seconded, it is unanimously resolved that:

**1:** IAPH appreciates the efforts made by IMO and other international organizations for establishing new schemes for ship recycling to ensure safe, healthy and environmentally sustainable conditions of ship recycling.

**2:** IAPH also appreciates the endeavor of the EU to accelerate the process of reforming ship recycling by implementing a scheme in the EU.

**3:** IAPH urges states to accelerate their ratification process for the Hong Kong Convention and initiate and support financial schemes which makes it possible to come to a responsible way of recycling ships.

**Resolution on establishing the IAPH Women's Forum Scholarship - adopted on 4 June 2015 at the**

## 29th IAPH World Ports Conference in Hamburg, Germany.

Whereas, IAPH resolved to create the IAPH Women's Forum and to create an annual scholarship intended for the training of women in ports at its board of directors meeting in Jerusalem, Israel in May 2012.

Whereas, the IAPH aspires to advance the status of women in the port industry, especially at IAPH member ports, by providing assistance for their continued education and training.

Now, therefore, the IAPH meeting at its Plenary on 4 June in Hamburg resolves that:

**1:** It will create the IAPH Women's Forum Scholarship consisting of two types of scholarship programs intended for young female staff employed at IAPH member ports to be implemented in the next term of 2015-2017:

1.1: the Women's Forum Biennial Training Scholarship to enable them to attend advanced port training program overseas,

1.2: the Women's Forum Annual Meeting Scholarship to enable them to attend the IAPH Conference and exchange information and experience at the IAPH Women's Forum.

**2:** An ad-hoc committee known as the Women's Forum Scholarship Committee will be established, including the chair of the IAPH Women's Forum, to oversee the program and select the awardees in consultation with the Communications and Community Relations Committee administering the IAPH Training Program Scholarship.

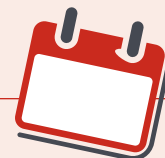
2015

2016

2017

# Dates for your diary

A selection of forthcoming maritime courses and conferences



## July

- 20-24:** Course on Management of a Conventional Terminal, Singapore  
<https://www.psa-institute.com>
- 20-31:** Strategic Customer Relationship Management in Maritime Trade, London, UK  
<http://www.ttpminternational.co.uk>
- 22-24:** AAPA Port Security Seminar and Exposition, Arlington, VA, USA  
<http://www.aapa-ports.org>

## August

- 17-28:** Port Management and Operations Course, Singapore  
<https://www.psa-institute.com>
- 17-28:** Port Efficiency Management, London, UK  
<http://www.ttpminternational.co.uk>
- 25-27:** ShipArc 2015, Malmö, Sweden  
<http://wmu.se/events/shiparc-2015>
- 31- 11 Sept:** Short Course on Hazardous Waste Management, Delft, Netherlands  
<http://www.unesco-ihe.org>

## September

- 2:** Cool Logistics Asia, Hong Kong, China  
<http://coollogisticsresources.com/asia>
- 7-11:** London International Shipping Week, London, UK  
<https://www.londoninternationalshippingweek.com>
- 7-11:** SMART Rivers 2015, Buenos Aires, Argentina  
<http://www.pianc.org.ar/sr2015>
- 7-18:** Seminar on Port Logistics, Antwerp, Belgium  
<http://www.portofantwerp.com/apec>
- 9-11:** IANA Intermodal Expo 2015, Ft Lauderdale, FL, USA  
<http://www.intermodalexpo.com>
- 14-18:** Effective Training of Port Workers, Singapore  
<https://www.psa-institute.com>
- Commences from 14:** Fundamentals of KPIs for Ports & Terminals (\*15% discount for IAPH members), Distance learning  
<http://www.ibc-academy.com/FLR2563IAPH>
- Commences from 14:** Diploma in Terminal Management (\*15% discount for IAPH members), Distance learning  
<http://www.ibc-academy.com/FLR2548IAPH>

# IAPH signs Memorandum of Understanding with AIVP

IAPH signed a Memorandum of Understanding (MoU) with AIVP (the worldwide network of port cities) at the board meeting on June 1 in Hamburg, Germany. The MoU aims to provide a framework to pursue cooperative project of mutual interest.

**MORE INFO:** <http://www.aivp.org>



Port of Longview

# Competition, co-operation, collaboration

**Geir-Eilif Kalhagen** is the CEO of the Port of Longview, Washington, USA, and the recently elected IAPH vice-president for the Americas

“It is also evident that these same ports benefit from co-operation with each other. As I affectionately refer to it “co-opetition”.”

Ports are vital assets that produce immense returns for their districts and their nations. We are all aware that over 90% of the world's trade moves by sea. Yet it does not seem that there is an appreciation for the fact that this also means over 90% of the world's trade, by definition, moves through ports.

It is great to read the headlines and see stories about different investments in port infrastructure around the globe. It is also reassuring to see that in some places in the world there is a clear acknowledgment that ports are part of a greater system, a system that needs to be viewed holistically and nurtured in such a manner that it can continue to provide precious returns.

For the benefits of a healthy port system, a key component of the global supply chain creates more than just profit at the corporate level. They create a vast number of jobs in the periphery as well. This is why it is incumbent upon us as leaders to make sure that we empower our staff to utilise the most

efficient and effective methods available to assure that the port system remains healthy.

While it is clear that there are times when ports must compete fiercely for business, it is also evident that these same ports benefit from co-operation with each other. As I affectionately refer to it “co-opetition”.

It is incumbent upon us to explore and identify ways in which we can benefit from the combined knowledge of the industry; the IAPH platform is perfectly suited for this type of exchange. Being able to reach out and realise the benefit lessons learned from both the successes and challenges faced by our colleagues is immeasurable.

For whether we are an urban port in a developed country, or a rural port in an emerging economy, we are struggling with many more challenges that seem familiar to both than are foreign. I am confident that, as we support and rely on each other, our combined accomplishments will have a profound impact. **RH**



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# container handling and port equipment



DK077  
Terex SC45KS  
Baujahr: 2013



D3419  
Linde C4535TL  
Baujahr: 2003



D3410  
CVS Ferrari F478.5  
Baujahr: 2008



D3409  
CVS Ferrari F478.5S  
Baujahr: 2007



D3324  
CVS Ferrari F479.5-S  
Baujahr: 2006



D3374  
CVS Ferrari F269.5  
Baujahr: 2001



D3378  
Kalmar DRF450-60S5  
Baujahr: 2010



D3399  
Kalmar DRF420-60S5  
Baujahr: 2010



DK069  
Kalmar DRF450-70S5XS  
Baujahr: 2007



D3247  
Kalmar DRF450-70S5XS  
Baujahr: 2007



D3408  
Kalmar DRS4531-S5  
Baujahr: 2006



D3131  
Kalmar DRF450-70C5XS  
Baujahr: 2005



D3376  
Kalmar DRF450-60S5  
Baujahr: 2003



D3415  
Kalmar DRD420-65S5  
Baujahr: 2002



D3385  
SMV 4535TB5  
Baujahr: 2011



D3384  
SMV 4535TB5  
Baujahr: 2008



D3372  
SMV SC4527CB5  
Baujahr: 2005



D3383  
Fantuzzi CS45KS  
Baujahr: 2004



DK038  
Herbst - ATAIR HFH ATAIR IX D620  
Baujahr: 2008



D3416  
Svetruck 25120-45  
Baujahr: 2006



D3395  
Hyster H16.00XM-12  
Baujahr: 1999



D3328  
CVS Ferrari F16  
Baujahr: 2003



D3407  
Kalmar DCD150-12  
Baujahr: 2003



D3397  
Svetruck 13,6-120-32  
Baujahr: 2008



D3255  
Svetruck 13,6-60-30  
Baujahr: 1996



D3388  
Kalmar DCE80-6HE  
Baujahr: 2007



EL4620  
Hubtex EKS110  
Baujahr: 2000



G0848  
Hyster H9.00XMG  
Baujahr: 2002



D3420  
Toyota 02-8FDF30  
Baujahr: 2011



D3371  
Manitou MRT3050  
Baujahr: 2010



D3313  
Manitou MRT1850  
Baujahr: 2001



D3393  
Hyster H22.00XM-12EC  
Baujahr: 2009



D3352  
Hyster 22.00XM-12EC  
Baujahr: 2008



D3351  
Hyster 22.00XM-12EC  
Baujahr: 2007



DIV1158  
Kalmar TRX182  
Baujahr: 2005



DIV1169  
Terberg TT20  
Baujahr: 1995

Pics, details and video: [www.hinrichs-forklifts.com](http://www.hinrichs-forklifts.com)





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