



# PORTS & HARBORS

Official Journal of the International Association of Ports and Harbors

## Ready for business

Dunkirk's 60% trade boost

## Keeping track of progress

Vessel tracking keeps berths efficient

## Booming Merlion

Singapore continues to roar

# Tailored to fit

Logistics solutions to suit all customers

# Cavotec in action.



As care of the environment, and subsequent social issues arising from pollution, become ever more important to companies around the world, we are continuously expanding our knowledge and expertise on the subject.

---

## Minimal pollution. Maximum efficiency.

---

This focus has led, amongst other achievements, to us becoming a main supplier of alternative maritime power (AMP) supply systems to ports and ship owners around the world.

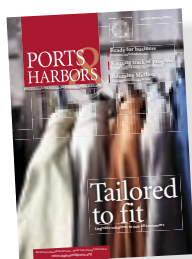
By allowing ships to disengage their engines when in port, local pollution levels drop dramatically. The success of these systems is measured by an ever increasing flow of interest from the market and society itself.

After 30 years of leadership in our industries, we understand that our customers require solutions that help to reduce their environmental impact without also reducing their bottom line. This approach will better ensure a cleaner and safer global environment for future generations and make the world a more pleasant place to live in today.



## REGULARS

- Comment:** Secretary General Inoue wants to see ports on the international environment agenda **3**
- News:** The latest on port updates, take-overs, awards, contracts, dredging projects, people and more... **4**
- Open Forum:** Jean-Claude Terrier documents how restructuring at Dunkirk helped to increase trade by 60% **22**
- Cover Story:** Ports are reinventing themselves as logistics centres to attract trade and boost revenues **24**
- Maritime Update:** The 45ft box is allowed to stay on Europe's roads, TWIC standards move closer, and more... **38**
- IAPH Info:** A convention on wreck removal gets nearer, plus all the news from the Europe/Africa meeting in Abuja **43**
- Bulletin Board:** Last chance to enter the IAPH essay competition and win a great prize, plus visitors to Tokyo **46**
- Last Word:** Jean Mongeau on how the democracy in the Association is guarded **48**

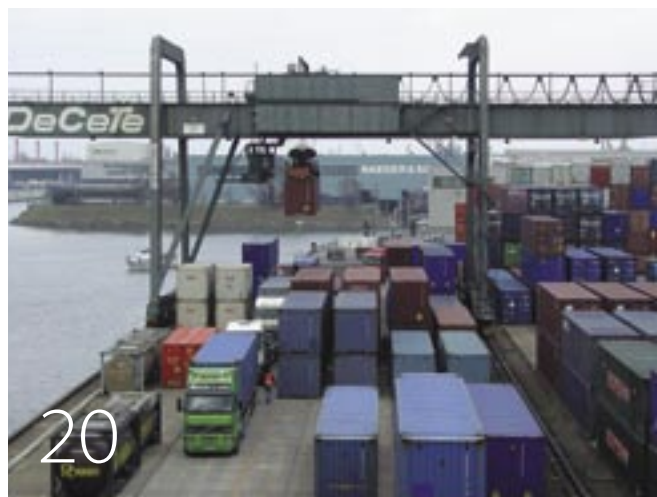


From garment finishing to cheese processing, the range of customers at ports is growing and so is the trade they generate

January 2007  
ISSUE 01 VOL 52

## FEATURES

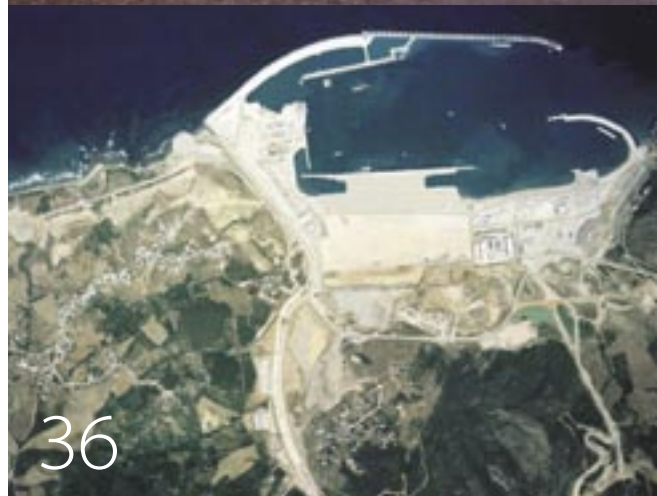
- Getting in on time:** Vessel tracking can help make berthing efficient, as Bridget Hogan reports **14**
- Keep on moving:** Martin Conway reports on how the Panama Canal eases traffic flows **16**
- Plotting a NEW course:** Tove Irén Becker on a scheme to cut US-China transits in half **18**
- Duisburg:** An inland port's success, by Michael Hollmann **20**
- Defeating surge waves:** Managing the big waves, by Dr David Johnson **30**
- The Merlion roars:** Singapore's growth **33**
- Morocco plans for 15,000teu ships:** North Africa's largest container port project, by Tony Slinn **36**



20



24



36

transport insurance plus **peace of mind**

Insurance for:  
Transport and logistics operators  
Ports and terminals  
Cargo handling facilities  
Ship operators



**TT CLUB**

Contact TT via your broker or at any point in the network.

London Tel +44 (0)20 7204 2626 New Jersey Tel +1 201 557 7300 Hong Kong Tel +852 2832 9301 Singapore Tel +65 6323 6577  
www.ttclub.com marketing@ttclub.com



**April 27 through May 4, 2007**

**Hilton Americas – Houston • Houston, Texas U.S.A.**

The Port of Houston Authority looks forward to hosting *Simply the Best* International Association of Ports and Harbors World Ports Conference in Houston. The 2007 world conference will unite world port leaders to discuss issues of immediate and long-term interest and concern of the industry. State-of-the-art maritime technology will be showcased at the conference exhibitions, and many social activities are planned to showcase the best in entertainment and cultural activities Houston has to offer!



**Highlights of the working sessions include:**

- Globalization of World Economy and Its Impacts on Ports
- Port Security and Risk Management
- Challenges to Port Environment
- Ports Adapting to Future Business Development Opportunities
- Logistics Infrastructure and Port Strategies
- New Technological Innovations for Port Operations

**Each registration includes:**

- Admission to the plenary and working sessions
- Admission to the exhibit hall
- Technical tour of the Bayport Container Terminal
- Admission to all social programs
- Conference breakfasts, breaks and lunches
- One Accompanying Person registration
- Simultaneous interpretation: English, Chinese, French and Japanese

**Register before March 1, 2007!**

**IAPH Member: \$2,050 USD**

**IAPH Non-member: \$2,400 USD**

Visit **[www.iaph2007.com](http://www.iaph2007.com)**  
for more information or to register!

# PORTS & HARBORS

Official Journal of the International Association of Ports and Harbors

## PORTS & HARBORS

Published bi-monthly by the International Association of Ports and Harbors (IAPH), edited and produced by Lloyd's Register-Fairplay Ltd.

## PUBLISHER

**Dr. Satoshi Inoue**  
Secretary General, IAPH  
info@iaphworldports.org

## EDITOR

**Bridget Hogan**  
bridget.hogan@lrfairplay.com  
+44 (0)1737 379148

## ASSISTANT EDITOR

**Stephen Cousins**  
Stephen.cousins@lrfairplay.com  
+44 (0)1737 379156

## SUB EDITOR

**Stephen Spark**

## SALES MANAGER

**Adam Foster**  
adam.foster@lrfairplay.com  
+44 (0)1737 379710

## DESIGN & PRODUCTION

**Phil McAllister**  
phil.mcallister@lrfairplay.com  
+44 (0)1737 379165

**Matt Ramsdale**  
**Neal Thompson**  
**Hannah Kidd**

## Liz Wall

liz.wall@lrfairplay.com  
+44 (0)1737 379166

**Sarah Treacy**  
**Eleanor Healey**

## MANAGING EDITOR

**G. Paul Gunton**  
Lloyd's Register-Fairplay Ltd  
paul.gunton@lrfairplay.com

## EDITOR-IN-CHIEF

**Tony Slinn**  
Lloyd's Register-Fairplay Ltd  
tony.slinn@lrfairplay.com  
+44 (0)1737 379159

## ASSOCIATE EDITOR

**Yuko Akamatsu**  
Assistant Under Secretary, IAPH  
ph@iaphworldports.org

## EDITORIAL & PRODUCTION

**Lloyd's Register-Fairplay Ltd**  
Lombard House, 3 Princess Way  
Redhill, Surrey RH1 1UP,  
United Kingdom  
Tel: +44 (0)1737 379000  
Fax: +44 (0)1737 379001  
Web: www.fairplay.co.uk

## SUBSCRIPTIONS

**International Association of Ports and Harbors**  
Price Japanese ¥12,000 (US\$115 / UK£60 / €87) or per issue ¥2,000, postage included. Visa and MasterCard accepted or for Bank Transfer. You do not have to be an IAPH member to subscribe – contact the IAPH. 7th Floor, South Tower, New Pier Takeshiba 1-16-1 Kaigan, Minato-ku Tokyo 105-0022, Japan  
Tel: +81-3-5403-2770  
Fax: +81-354037651  
Email: ph@iaphworldports.org  
Web: www.iaphworldports.org

## COPYRIGHT

No article may be reproduced by any means, in whole or in part, without the written permission of IAPH and Lloyd's Register-Fairplay Ltd

## DISCLAIMER

The Lloyd's Register-Fairplay Group shall not be liable to any person for any loss, damage or expense caused by reliance on information or advice in this publication unless that person has signed a contract with the relevant LRF Group entity and in that case any liability is on the terms set out in that contract. The opinions expressed are not necessarily those of IAPH or the LRF Group and the inclusion of an advertisement implies no endorsement of any kind by IAPH or the LRF Group of the product or service advertised. IAPH is unable to accept any liability for the consequences of any inaccuracies, errors or omissions in this publication.

# Ports on the agenda

Influential international and regional meetings are at last including ports in their discussions about the management of coastal environments – but it is a slow process.

Last December, port environment issues were on the agenda for the first time at an important gathering of experts on the subject. This was the East Asian Seas Congress 2006, which discussed sustainability of the East Asian Seas (EAS) and made recommendations to the Ministerial Forum held on the final day. It was organised by the Global Environment Facility (GEF), UNEP, IMO-supported Regional Program on Partnerships in Environmental Management for the Seas of East Asia (PEMSEA).

More than 800 people – government officials, NGOs, private companies, scientists and experts – gathered in Haiko, China, to discuss ocean and coastal management and environmental protection in the EAS. They attended more than 40 workshops and seminars on a broad spectrum of subjects.

For us the significance is that, of the 40, only one discussed port issues. Why is the port industry such a relative newcomer in regional and international programmes to improve the environment? We need to work more closely with these initiatives, as ports could greatly increase their effectiveness. Another gain would be a strengthening of ports' contingency plans to cope with oil and other hazardous cargo spills through better collaboration at local and regional levels.

This principle can be applied not just to the EAS region, but also to many other parts of the world. In fact, PEMSEA is just one of many initiatives in the UNEP Regional Seas Programme, which is meant to draw in all sectors to provide an integrated approach to coastal and marine problems together with environmental management.

Today the Regional Seas Programme covers a total of 13 regions including the Black Sea, the Mediterranean Sea, the seas around Africa, the Pacific Ocean and the Caribbean.

Global sustainability is becoming a critical consideration for port managements and it is time to work hand-in-hand with local and regional environmental programmes, particularly those of the Regional Seas Programme. *P&H* will feature more on this topic in the future and IAPH will work on expanding relations with the programmes. The forthcoming Houston Conference will also discuss environmental issues, especially in relation to ports' duties under the corporate social responsibility banner.

I would like to take this opportunity to wish all IAPH members and friends a very happy and prosperous New Year and I look forward to seeing you all in Houston at the 25th IAPH World Ports Conference in April. **PH**



**Dr. Satoshi Inoue**  
Secretary General – The International Association of Ports and Harbors



## Port updates

### DOHA PASSENGER TERMINAL

Qatar has opened a new passenger terminal at Doha port to boost tourism. The terminal will help simplify procedures for visitors and travellers, said Qatar's Customs and Ports General Authority chairman Ahmed Hussein Al Haiki. Up to 400 passengers can be accommodated at the new facility, which covers an area of 2,000m<sup>2</sup> and includes a VIP lounge and duty-free shops.

### MORE KOREAN GRAIN BERTHS...

Pyeongtaek and Gunjang ports are to increase their facilities by adding grain and general cargo berths by 2010. South Korea's Ministry of Maritime Affairs and Fisheries (MOMAF) said that it has signed a contract with Pyeongtaek/Dangjin Grain Port Co for construction of two 50,000dwt grain berths and a 300,000t grain silo. Total investment will stand at W119Bn (\$127.6M) and building is to start this year.

### ...AND STEEL BERTHS

Dongkuk Steel in South Korea has completed construction of steel berths able to accommodate vessels of 40,000dwt and 10,000dwt in Pohang. The facilities will be capable of handling 2.3M tonnes and 800,000 tonnes a year respectively. Slab and other raw materials will also be handled.

### MALAYSIA INTEREST IN SANTOS

Malaysia's ambassador to Brazil, Dato Ismail Mustapha, said his government is "very keen" to help develop the \$700M Barnabé-Bagres project, which would double Santos's capacity. He told the port authority that Malaysian companies would have a "clear interest" in investing. Mustapha said Malaysia was keen to export more rubber to Brazil.

### LIBYA BOX PROPOSALS

Three shipping lines proposed building a new container terminal at the Libyan port of Tripoli. Messina Lines and Tarros International of Italy and UK operator Brintermed, sent representatives to Tripoli to present the proposal. The 150,000m<sup>2</sup> terminal is expected to cost €25M (\$32M).



The cranes arrive: they dwarf Auckland's harbor bridge

## Giants march into New Zealand

Ports of Auckland, New Zealand, has taken delivery from ZMPC of China of the latest cranes in its NZ\$40M (\$27M) container handling equipment investment programme.

The port now has three new cranes and 11 new eco-friendly straddle carriers. In 2006 the port company handled more than \$14Bn-worth of New Zealand's imports and exports.

The new container cranes are 103m high, boom up – more than 40m higher than the top of the Auckland Harbour Bridge.

The new cranes are claimed to be the fastest, biggest and most productive of any in New Zealand

ports, with longer booms and increased lifting power and speed.

They will bring the port company's fleet to eight: five at Axis Fergusson container terminal and four at Axis Bledisloe container terminal.

The Port of Auckland is the only port in the southern hemisphere with double twin-lift capabilities (both the cranes and straddle carriers can each lift two containers at a time).

The diesel-electric straddle carriers are more efficient, have less exhaust emissions and able to be used as generators to power critical refrigerated cargo in the case of a power failure.

## DP world sells to AIG

DP World (DPW) has sold its US terminal assets to the American International Group (AIG) Global Investment Group, which will operate the former P&O ports terminals under a newly-created subsidiary.

The purchase price was not disclosed, but DPW was reported to be asking for \$700M. "With the sale of the US assets, we have concluded the process and our commitment to the American people that we began in March 2006," DPW chief executive Mohammed Sharaf said. "Meanwhile, we continue to expand globally in response to our customers' needs."

DPW chairman Sultan Ahmed Bin Sulayem added: "While we are disappointed to be exiting the US market, the price we received was fair. We are pleased that POPNA will have a strong owner in AIG and wish them well for the future."

## APL teams up to cut air pollution

Oakland, California-based liner operator APL will begin testing new engine lubrication methods in February to cut air pollution.

The operator is teaming up with the California Air Resources Board, the federal Environmental Protection Agency, the Ports of Los Angeles and Long Beach and four local air quality management boards on a project that could reduce nitrogen oxide by 20%.

The new lubrication methods are to be tested on the *APL Singapore*, involving water-in-fuel emulsification and the use of slide valves in engine cylinders. The company is also testing a way to reduce cylinder oil consumption by between 20% and 50%.

Test results are expected to be known about a month after starting. The shipping line has also begun to use low-sulphur fuel in 23 of its vessels that call regularly at Los Angeles and Oakland.

## Vietnam box berths agreement

Busan Port Authority and nine other companies including stevedoring and construction companies will form a joint venture to build three container terminals in Vietnam. Some \$483M is set to be invested to build three boxship berths, each to accommodate 6,000teu vessels, at Cai Mep, Vung Tau, by 2010.

Kim Sung-Jin, South Korea's maritime affairs minister, visited Vietnam to sign an MOU on port co-operation between the two countries.

The MOU principally covers exchange of port information technology, development and operation of Vietnamese port facilities, welfare of seafarers and co-operation in marine safety.

# Race to legislate in Nigeria

Nigeria's port administration is in a race against time to steer legislation confirming private terminal concessions before the country's general elections, expected to be held next April.

Mfon Usoro, director general/CEO of the National Maritime Administration and Safety Agency, admitted to *P&H* that the lack of legislation to back up the country's ambitious terminal concessions programme was making some foreign operators "nervous".

She emphasised: "They see it as a political risk and not a commercial one."

The legislation would confirm the companies' status as private terminal operators, but Usoro insisted that they were not working in a legal vacuum in the meantime.

"The concession agreements were very well drafted, but



## Usoro: no legal vacuum

companies have invested lots of money and they are worried."

She told the UK Ports and Terminals Group: "This is Africa and we cannot predict what will happen when there is a change of government, as this could lead to a change of legislation."

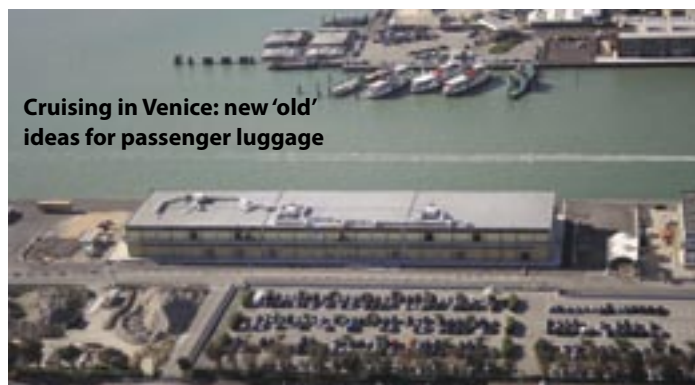
"There is a lot of anxiety to make sure these bills are passed to give certainty to customers."

The bill has already been given a

first reading by the Nigerian Parliament and is about to go to a second reading, Usoro added.

# Venice speeds up passenger handling

A €2M (\$2.6M) dedicated cruise facility, Terminal 117, has opened at the Italian port of Venice. The terminal is a joint project between Venice Port Authority and Venezia Passenger Terminal. MD Roberto Perocchio told *P&H* the terminal has decided there will be no airport-style carousels for luggage collection. Instead it will use colour co-ordinated sections in the terminal. "This is an old idea which has become new again," he said.



**Cruising in Venice: new 'old' ideas for passenger luggage**

# Advice after mooring fatality

An investigation into the death of a crewman aboard the Marshall Islands-registered OBO carrier *Probo Bear* has prompted recommendations on mooring practices.

The seafarer was killed on 10 April last year at Groote Eylandt, in Australia's Northern Territory, when a forward mooring line parted, striking him on the head at high speed.

An Australian Transport Safety

Bureau (ATSB) investigation report recommended that the vessel's manager, Prime Marine Management of Athens, and *Probo Bear*'s masters should review their mooring practices to improve preparedness and communication.

The report also said: "Ship managers and masters should ensure that personnel supervising mooring operations are stationed such that they can clearly sight

all operations that they are responsible for."

The ATSB also found that the third mate's position during an operation to move the ship forward at berth meant that he did not have a clear view of the spring lines or the crew members operating the spring winch.

"The incorrect use of the winch brake may have led to the formation of fast spinning turns or loops of mooring line," it said.

## Port updates

### COAST 2000 EXPANDS

The Port of Vancouver's Coast 2000 terminal is expanding its current container yard by 25ha, bringing the total space to 74ha. Storage capacity is being increased to 22,000teu. The terminal will also reconfigure its gate structure, reefer section and repair facility, and has ordered new handling equipment. Construction will be completed in the second quarter of 2007.

More info: [www.portvancouver.com](http://www.portvancouver.com)

### ON TIME, ON TRACK

Oman's Port of Salalah is on schedule in building two additional berths with 18m alongside depth to handle new-generation ships. Managed and operated by APM Terminals and sister company Maersk Sealand, the port – which handled 2.5M teu last year – also aims to attract more business and install six new cranes.

More info: [www.salalahport.com](http://www.salalahport.com)

### CRANES FELLED

The northern Vietnamese port of Cai Lan may be out of action for months after its two quay cranes were destroyed in a storm. The port serves the coastal region near Hanoi and is the only one in the region with deepwater facilities. Cost of the damage is estimated at \$8M.

More info: [www.vnn.vn/province/quangninh/proj\\_impl.html](http://www.vnn.vn/province/quangninh/proj_impl.html)

### HALIFAX CHANGES HANDS

Halterm, the original container terminal in the Port of Halifax, has been bought by Macquarie Infrastructure Partners of New York. The terminal has two post-Panamax cranes, four ship gantry cranes and three 1,000m-long deepwater berths.

More info: [www.portofhalifax.ca](http://www.portofhalifax.ca)

### FROM AIR TO SEA

Hong Kong's old Kai Tak airport runway is to become a 7.6ha terminal capable of handling two 100,000grt cruise ships. The present facility at Tsim Sha Tsui, in the centre of Kowloon, can only accept ships up to 50,000grt. Tenders will be invited towards the end of the year, with the first berth likely to be in use by 2012. In addition, a new \$129M four-berth ferry terminal – set to open in 2008 – is to be built by Hong Kong's Airport Authority.

## Port updates

### LIBERIAN UPGRADE

The Port of Monrovia is a major beneficiary of a World Bank regeneration package that will see \$8.5M spent restoring Liberia's war-torn transport infrastructure. The port will be dredged, an oil jetty upgraded and training schemes implemented at the National Port Authority.

More info: <http://web.worldbank.org>

### ORKNEYS HUB

Plans for a container transshipment hub on an old naval base at Lyness in the Orkney Islands, Scotland, are moving ahead. Orkney's Department of Harbours and Hili Group of Malta have signed a three-month MoU that should pave the way for construction to begin this year on a two-berth 550m quay with 16.5m alongside depth. A new quayline will extend 60m beyond the existing quay.

More info: [www.orkneyharbours.com](http://www.orkneyharbours.com)

### DEEPER DEVELOPMENT

The small, shallow-water port of Puducherry (formerly Pondicherry) in southeast India is to be transformed into a deepwater port to handle containers, general, bulk and liquid cargo. The Rs21,000Bn joint venture between Subhash Group and Om Metals is expected to be ready by 2014, with three container berths, one general berth and a cruise terminal.

More info: [www.spml.co.in](http://www.spml.co.in)

### PRINCE'S AMBITIONS

Canada's Port of Prince Rupert is planning to build a second, 2M teu container terminal on nearby Ridley Island that will double box capacity. The under-construction Fairview Terminal is planned to have 2M teu by 2010, but will open shortly with an initial 500,000teu capacity.

More info: [www.rupertport.com](http://www.rupertport.com)

### PENANG UPGRADE

A total of \$281M is to be spent over the next five years to upgrade Penang port's wharves and deepen approaches. CEO of Penang Ports Sdn Bhd (PPSB), Niana Merican, told *P&H*: "We are expanding our terminal and are planning to purchase six super post-Panamax cranes capable of handling 7,000teu."



Capacity will increase threefold

## Colombo starts port expansion project

Sri Lanka Ports Authority (SLPA) has announced the inauguration of the Colombo port expansion project (CPEP), the largest project ever undertaken in Sri Lanka.

It calls for the building of four container terminals each with four berths, which will ultimately lead to a threefold increase in port capacity.

The project will include public-private partnerships in the provision of terminal services, but the government will build and continue to own the harbour facilities.

In addition to being the overall landlord, the SLPA will have an equity stake in each terminal being developed, and hopes to maximise on the market-building, training and knowledge transfer opportunities available through the joint ventures.

When the project is completed, the capacity of the Port of Colombo will be

approximately 12M teu compared to its existing annual maximum capacity of around 4M teu. The existing port is expected to reach this capacity soon, as it has handled 3M teu in the first 11 months of 2006.

Each new terminal will have between three and four berths totalling 1,200m in length with the first terminal becoming operational in 2010. That will have a nominal capacity of 2.4M teu, with the others being brought on-line as the market demands it.

The new port basin will have a dredged depth of 18m, with an access channel depth of 20m. It is planned to incorporate the latest generation of yard planning and container handling equipment and techniques, with the aim of maintaining berth and vessel productivity at class-leading levels of performance.

## 2M teu milestone

APM Terminals Rotterdam celebrated handling its two millionth teu in November, surpassing the total number of 1.75M teu handled in 2005. This reflected the increase of more than 30% in deepsea volumes last year compared with 2005 figures.

Some of the growth can be attributed to the integration of the terminal's largest customer, Maersk Line, with P&O Nedlloyd.

According to APM Terminals Rotterdam director Nick Fisher, strong growth in the total market also contributed. "APM Terminals Rotterdam expects the growth in volume to continue in 2007," he said.

## Eleonora makes her debut

Maersk Line has taken delivery of its latest 11,000teu container vessel. The *Eleonora Mærsk* is the third in a series that are currently the world's largest container vessels.

The Danish-based group has announced that the vessel is painted with environmentally friendly silicone paint below the waterline – reducing water resistance and cutting the vessel's fuel consumption by 1,200 tonnes a year.

## Inchon aims for 30 berths

More than 30 berths are to be developed by 2020 at Songdo, in the new international business and financial hub at Inchon, South Korea. Thirteen container berths are to be built by 2015, capable of accommodating container ships of 2,000-4,000teu and four

general cargo berths which will take 20,000-50,000dwt ships.

Ten more container berths and three more general cargo berths are to be constructed by 2020. About W4.3Trn (\$4.6Bn) will be invested in the port project, some of which will come from Inchon Port Authority and the

remainder from the government.

Construction of port infrastructure including road improvements is to start early this year. Songdo benefits from being one of three constituent areas of the Inchon free economic zone, which covers nearly 21,000ha.





# Total Solutions for Cranes

Developing more efficient and reliable crane drive control and management systems is something we at Siemens Cranes know all about.

As a specialized unit within Siemens, we offer products, systems and complete solutions for all types of cranes. From drives, power distribution and field devices to our sophisticated SICMA Crane Management and TOUCHMATIC Sway Control Systems and semi-automated operation. Technological know-how and resources, including consultancy, engineering, project management, commissioning, training and after-sales service.

Our experience with crane projects worldwide and our global presence give you the guarantee of a reliable partner who can offer you solutions to meet your needs. Let's talk...

Siemens Cranes, Netherlands, phone +31 70 333 3227  
[cranes@siemens.nl](mailto:cranes@siemens.nl) or contact your local Siemens office.  
[www.siemens.com/cranes](http://www.siemens.com/cranes)



## SIEMENS

Global network of innovation

## People

### JAPAN ADVICE FOR CANAL

The Panama Canal Authority (ACP) has appointed Nippon Yusen Kabushiki Kaisha (NYK Line) president Koji Miyahara as its newest advisory board member to help strengthen the canal's direct consultation with the shipping industry. It also provides the board with representation from Japan, one of the biggest users of the Panama Canal. Miyahara will play a key role in the implementation of the ACP's expansion plans.

*More info: [www.pancanal.com](http://www.pancanal.com)*

### FINANCE POST

Acting CFO Sam Joumbat has been appointed to the permanent position of CFO at the Port of Long Beach. He replaces Mike Slavin, who retired in September. Joumbat will oversee accounting responsibilities for the port's \$474M annual budget.

*More info: [www.polb.com](http://www.polb.com)*

### TACOMA TRIO

The Port of Tacoma, which expected its vehicle traffic to reach 160,000 units last year, has appointed Andre L Elmaleh director of auto business. Vincent Ryan joins the Port of Tacoma as senior contracts administrator, moving from Seattle. David Sleight is the port's new project manager-transportation applications in its information technology department, charged with developing software to improve the efficiency of the portwide transportation system.

*More info: [www.portoftacoma.com](http://www.portoftacoma.com)*

### NEW AT TT CLUB

Mike Foster has been appointed to the new position of claims director for the TT Club, responsible for claims management worldwide. Until recently, the club has been managing claims on a regional basis, reporting to senior executives in London. Foster was formerly head of the UK and Irish business unit, a position he held since 2002. Kim D Saunders of Richmond has been appointed to the Virginia Port Authority (VPA) Board of Commissioners by Gov Timothy M Kaine. Saunders will fill the seat vacated by Jonathan F Johnson, also of Chesterfield, who resigned in June for personal reasons.

*More info: [www.ttclub.com](http://www.ttclub.com)*



The board of the CSA meets in Panama City

## Bearing the costs

The Caribbean Shipping Association (CSA) elected new leadership at its 36th annual general meeting, held in Panama City.

Fernando Rivera, former president of the Puerto Rico Shipping Association, was elected president and Carlos Urriola, of Panama, becomes vice-president.

Rivera said CSA members faced problems related to economies of scale and the scarcity of capital resources. Ports had put in place expensive security measures in order to continue trading with the US. He described the Caribbean countries as "poor and debt-ridden

with little or no significant support from the real beneficiaries of these security measures – the more developed countries."

He added: "And while these small territories struggle with the tremendous cost of developing efficient and dependable port operations and having to purchase expensive security technologies from the developed countries, we are faced with the damaging effects of overweight containers being landed on our wharves." He urged carriers to understand the "great social and economic problems" this caused.

## Phang in hall of fame

IAPH vice-president Datin Paduka O.C. Phang, general manager of Port Klang Authority (PKA) has won the Lloyd's List Maritime Asia hall of fame award for her contribution to the development of the Port as a national load centre.

Phang praised the government of Prime Minister Seri Abdullah Ahmad Badawi and particularly the transport ministry, under minister Seri Chan Kong Choy, for the "confidence and co-operation" she has been shown since she took up the post in 1997.

"I appreciate my working team at PKA who have been through thick and thin in the development of the country's premier container port," she said at the award ceremony in Kuala Lumpur.

"Not to forget the maritime community, especially those in the port who have given their support to PKA," Phang added.

## Green light for Burchardkai

Restructuring of Hamburg's largest container terminal, Burchardkai, can go ahead as planned. The city state's administrative court has dismissed an action brought by 31 residents who feared rising noise pollution from the terminal.

Operator HHLA wants to double the capacity at Burchardkai to 5.2M teu through part-automation of yard operations. Work can now start immediately, as planning and building approval has already been granted.

## Defence innovation award

AISLive has won a major UK data and IT award for its "innovative and practical" approach in developing an international network to monitor real-time movements of merchant shipping.

The AISLive web-based system tracks and monitors the movements of thousands of merchant ships and provides ports with data to improve port and coastal safety and security and improve the management of logistics resources.

## Algiers to boost box facilities

Algiers port in Algeria is planning to almost double its box throughput by 2010 to 700,000teu through the modernisation of its existing facilities.

Port authority EPAL (Entreprise Portuaire d'Alger) says it will purchase at least two gantry cranes to replace conventional equipment, in a bid to cut the average dwell time of boxes from 25 to 15 days.

"The purchase of these gantries will boost the container terminal's productivity tremendously and help the port to handle a sustained increase in box traffic," an EPAL spokesman said.

In the longer term, Algiers plans to deepen its accesses to be able to accommodate ships with more than 12m draught. Algiers handled a total cargo throughput of 10M tonnes in 2005, including 450,000teu, 2M tonnes of oil, 2M tonnes of grain and 250,000 passengers.



## Fast cargo carriers coming

The Boulogne Chamber of Commerce and Industry has announced a €20M (\$26M) investment in a new ro-ro berth, to open later this year.

Boulogne will become the European hub port for the new fast jet cargo carriers – stainless steel trimarans called BGV (Bateau Grande Vitesse) – linking the French port of Boulogne-sur-Mer with Drammen in Norway, Santander in northern Spain and Sheerness in England.

Orders have recently been placed by Norwegian company NorFerries for the first three new BGVs. Two of these will be 180m vessels able to carry 94 trailers while the third is to be a larger vessel with space for 175 trailers.

All three vessels will have an average speed of 35kt. The larger one will operate on the southern route between Boulogne and Santander and the other two on

the northern routes, between Boulogne, Sheerness and Drammen. With Boulogne as the hub-port, journey times will be: Santander–Boulogne, 20 hours; Boulogne–Sheerness, 2 hours; Boulogne–Drammen, 20 hours.

Spearheading the BGV project, the Boulogne Chamber of Commerce and Industry wants to attract new investment into the commercial area of the port following the closure in 2003 of the Comilog ferro-manganese plant, which is where the new ro-ro berth will be constructed.

"This is excellent news for the future development of the Port of Boulogne as the only French port to be involved in the revolutionary BGV project," said Francis Leroy, president of the Boulogne Chamber of Commerce and Industry.

*More info:*  
[www.bgv-international.com](http://www.bgv-international.com)

## Brisbane gold rush

The Australian port of Brisbane has received seven proposals to operate two new container berths, due to open in 2011 and 2013.

Proposals have been received from both national and international terminal operators and shipping lines, said port CEO Jeff Coleman. Although the port declined to name the bidders, International Container Terminals (a joint venture between ICTSI and Australian company Anglo Ports) revealed earlier this year that it would bid.

Coleman advised that the selection process for the berth operator would begin early this year, with the successful bidder announced in the second half of the year. P&O and Patrick, now owned by DP World and Toll Holdings respectively, currently operate Brisbane's Fisherman Island container berths.

## New car port gears up

The Estonian port of Port of Sillamäe (Silport) has discharged its first car carrier at its new facility, after the *Grande Italia* docked.

The cargo of 3,196 cars was discharged at an average rate of 200 cars per hour, ready for transshipment to Russia after being stored in the Sillamäe Free Zone.

The new terminal has two ro-ro ramps of 30m wide that can accommodate the largest ro-ro

vessels in the Baltic Sea. A storage area of 15,000m<sup>2</sup> is available at the quayside for discharging vessels and there is another 42,000m<sup>2</sup> of storage area available. A third storage area, of 100,000m<sup>2</sup>, is under construction.

At only 25km from the EU-Russia border, Silport is the closest deepsea port to Russia and the CIS countries. Depths of 12–16m at the quayside mean that the largest vessels serving the Baltic Sea can use the port.

## 28th IADC INTERNATIONAL SEMINAR ON DREDGING AND RECLAMATION

**26 – 30 March 2007, Mexico**

For more information and registration, please contact Mr. F.H. Cammel at [info@iadc-dredging.com](mailto:info@iadc-dredging.com) or visit [www.iadc-dredging.com](http://www.iadc-dredging.com)

## FOR WHOM?

For decision makers and their advisors in government, port and harbour authorities, off-shore companies and other organisations that have to execute dredging projects, the International Association of Dredging Companies organises the International Seminar on Dredging and Reclamation.

The 28th Seminar will take place at the Hotel Camino Real, Tampico, Mexico, Monday 26 March – Friday 30 March 2007.

An important feature of the seminar is a trip on a trailing suction hopper or cutter to visit a dredging project being executed in the given geographical area. This gives the participants the opportunity to see dredging equipment in action and to gain a better feeling of the extent of a dredging activity.

### Highlights of the programme are:

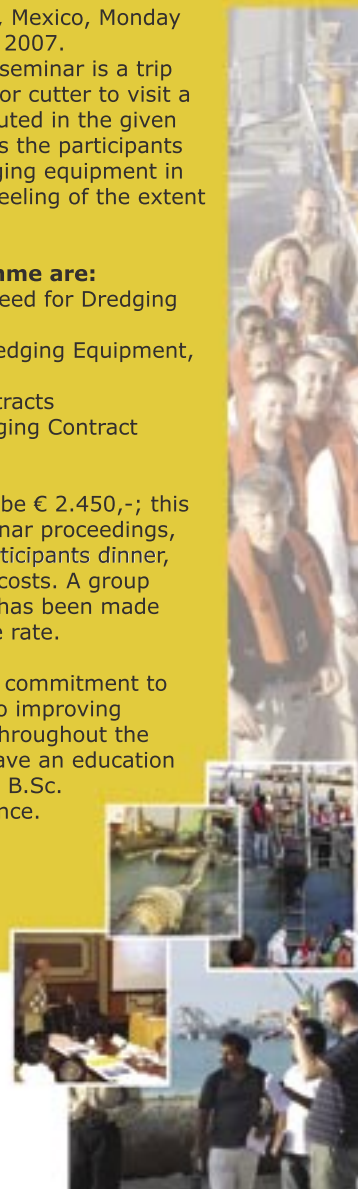
- Day 1 Why Dredging? The Need for Dredging and Project Phasing
- Day 2 What is Dredging? Dredging Equipment, Survey Systems
- Day 3 Cost, Pricing and Contracts
- Day 4 Preparation of a Dredging Contract
- Day 5 Dredging Projects

The cost of the seminar will be € 2.450,-; this fee includes all tuition, seminar proceedings, workshops and a special participants dinner, but is exclusive of all travel costs. A group accommodation agreement has been made with the hotel at a corporate rate.

The Seminars reflect IADC's commitment to Continuing Education, and to improving knowledge about dredging throughout the world. Participants should have an education level equivalent to at least a B.Sc. or comparable work experience.

### IADC Secretariat

PO Box 80521  
2508 GM The Hague  
The Netherlands  
Phone: + 31 (0)70 352 33 34  
Fax: + 31 (0)70 351 26 54  
E-mail: [info@iadc-dredging.com](mailto:info@iadc-dredging.com)  
Website: [www.iadc-dredging.com](http://www.iadc-dredging.com)



## Cash & cargo

### CAR BOOST FOR SANTOS

Extra capacity and the end of a monopoly boosted car exports from the Brazilian port of Santos by more than 16% during the first nine months of last year, according to port authority Codesp. About 186,000 cars were exported through the long-established Deimar and the new TEV terminal in that time.

### CUSTOMS STREAMLINING

As part of a bid to streamline customs and other port inspection procedures, the Brazilian government has launched a scheme to set up Complexo Administrativo Unicos (CAU, or Unique Administration Complexes). Salvador opened the first Brazilian CAU late last year, and the second will open at the port of Aratu, in the northeast of the country. The transport ministry in Brasilia has set aside about R\$15M (\$6.8M) for the construction of 11 CAUs at various ports around the country, as part of its scheme to try to reduce bottlenecks.

### BALTIC CRANES

Baltic Container Terminal (BCT), Poland's largest container-handling facility, has taken delivery of two new post-Panamax cranes for its Gdynia terminal. The two units, built by Kone Cranes have 50 tonnes capacity and an outreach of 46m, across 17 rows of containers, with a backreach of 20m.

### BUDGET IN SEATTLE...

The new Port of Seattle budget projects operating revenues of \$443.2M for 2007 – reflecting a new record for the port. The increase reflects higher occupancy at the seaport, more passenger traffic at Sea-Tac Airport, and more cruise passengers.

### ... AND TACOMA

The Port of Tacoma Commission voted to approve a 2007 budget with an overall operating revenue projection of \$102.5M – a 12.6% increase over the 2006 performance. According to Jeff Smith, senior director of finance and administration, this produces an estimated operating income of \$23.6M and a net income of \$19.9M.



One of the railway junctions which will be bypassed

## Clearing Chittagong congestion contract

UK-based consultant High-Point Rendel has joined a team of consultants for an \$11M project to improve access to Bangladesh's principal seaport in the city of Chittagong.

A new 1.7km road is to be built to avoid congestion, with 1.1km of it elevated, so traffic to the port can bypass a canal, railway tracks and a truck parking area.

When complete, the connector road will provide controlled access to Chittagong Port from the newly completed Chittagong bypass, allowing vehicles destined for the port to avoid local traffic congestion.

The project is to be funded jointly by the Bangladeshi government and partly by the Asian Development Bank.

## Huge interest in China port builder IPO

China Communications Construction, the country's leading port builder, has attracted massive demand from investors. The Hong Kong shares on offer were oversubscribed 219 times.

The shares were priced at HK\$4.60, the top end of the range, and with a total of 3.5Bn shares on offer, the company stands to raise HK\$1.61Bn (\$207M) in the IPO.

China Communications Construction controls 90% of China's port construction market. In Beijing's 11th Five Year Plan, there are plans for further investment in port infrastructure.

The company said in its prospectus that it planned to use the proceeds from the share sale to finance the purchase of equipment to build roads, ports and railways, pay off debt and improve capacity at its container-crane factory in Shanghai.

But the prospectus was frank about the risks the company faces. "The PRC government's spending in the transportation infrastructure industry has historically been, and will continue to be, vulnerable to China's economy and is cyclical in nature," the risk statement said.

## Marseilles maintains all-round growth

Traffic through the port of Marseilles-Fos rose to above 90M tonnes in the first 11 months of last year, reaching 91.7M tonnes, a 4% increase on the corresponding period of 2005.

Containers rose 4% overall to 864,000teu, including 595,000teu (up 7%) on the key east-west trades handled at Fos. In tonnage terms, containers contributed 8.5M tonnes (up 6%) to the general cargo total of 15M tonnes (up 6.4%), which included 3.7M tonnes of ro-ro traffic (up 8%) and 2.8M tonnes (up 6%) for conventional traffic.

The Port of Marseilles Authority has ordered a third, €3.2M (\$4.2M) 100-tonne mobile crane to help handle containers in the eastern harbour area. It will start service in the next few months.

It will join other wheel-mounted units working around various terminals in the eastern harbour to boost container throughput in 2007.

Marseilles is also celebrating 5% growth in dry bulks, which hit 15M tonnes. The rise was fuelled by a 30% increase in coal shipments alone.

Dry bulks look set to break the full-year record of 15.5M tonnes set in 2000 once the 12-month figures are known. Liquid bulks nudged 1.3% ahead on 2.9M tonnes.

Oil volumes improved 3.1% overall to 58.7M tonnes, despite crude imports slipping to 40.3M tonnes. Refined products and LPG finished 16% better at 14.7M tonnes while LNG rose 6% to 3.7M tonnes. Passenger volumes rose 9% to 1.93M for Corsica and Africa services.



## Partner ties up agreement

Drogheda Port Company has selected a consortium as preferred bidder following an open competitive process to secure a joint-venture partner to co-develop Ireland's new €210M (\$275M) deepwater Port at Bremore, Co Fingal.

The successful consortium is led by Castle Market Holdings – a subsidiary of Real Estate Opportunities (REO). Commercial arrangements for the joint venture will now be finalised.

The port is needed to clear congestion generated

by growing freight volumes of 6.5% a year.

"Bremore has enormous potential. In our view it is quite unique and one of the most exciting projects in Ireland today. We are delighted to bring Treasury Holdings' extensive development experience to bear to ensure the success of this strategic national asset," said Paddy Teahon, director of Treasury Holdings, REO's manager and majority shareholder.

More info: [www.droghedaport.ie](http://www.droghedaport.ie)

## TT Club offers ports cover against 'dirty bombs'

Specialist transport insurance provider the TT Club has announced it will offer nuclear and bio-chemical terrorism cover – so-called 'dirty bombs' – starting from this month, in an initiative that will cover ports.

Cover will be available for physical loss, business interruption and liabilities, whether a bomb has gone off or not. Of particular interest is the availability of cover for incidents or threatened incidents, that do not cause physical damage but disrupt trade.

Direct business losses limit

options will provide cover up to a maximum of \$25M for any single incident per member, while indirect business interruption losses will be available for limits up to a maximum of \$5M, for any one incident per member. A pool aggregate limit for all claims in any one year of \$100M is expected to be achieved.

TT Club's underwriting director, Brian Wood, commented: "Concerns have been expressed within the industry regarding the potential security threat presented by the risk of such attacks on international transport

infrastructure.

"The Club is always looking for options to improve the way in which its members' risk exposure can be managed and this pooling arrangement is a good example of finding a mutual solution to a common concern."

Wood explained that premiums would be priced according to potential exposure and the size of limit chosen by the insured. In the event that there is no claim to the pool in any one year a 25% continuity credit will be offered to members who renew.

More info: [www.ttclub.com](http://www.ttclub.com)

## Cash & cargo

### SOUTH AMERICA RTG ORDERS

Kalmar has received several orders for a total of 13 E-one RTGs from Peruvian Neptunia and two RTGs will go to Terminal Pacifico Sur Valparaíso in Chile. Kalmar will deliver six RTGs. Five RTGs will be delivered to the Port of Trinidad and Tobago. The units will be delivered by the end of this year. The unit prices for RTGs vary between €1M and €1.5M (\$1.3-1.9M).

### BRISBANE STRADDLES

Kalmar is also delivering more automated equipment to expand Patrick Corporation's Brisbane operation. The five automated straddle carriers will be delivered to the Fisherman Islands terminal later this year.

### PANAMAX IN CRISTÓBAL

The Port of Cristóbal has taken delivery of three Panamax cranes, enabling the terminal to service two Panamax vessels simultaneously. Operator Panama Ports Company also opened rail facilities that enable the port to load and discharge containers direct from rail wagons to the container yard. The new on-dock rail facilities will allow transshipment by discharging containers at Balboa in the Pacific and loading them at Cristóbal in the Atlantic, and vice versa, in one hour, the port claims.

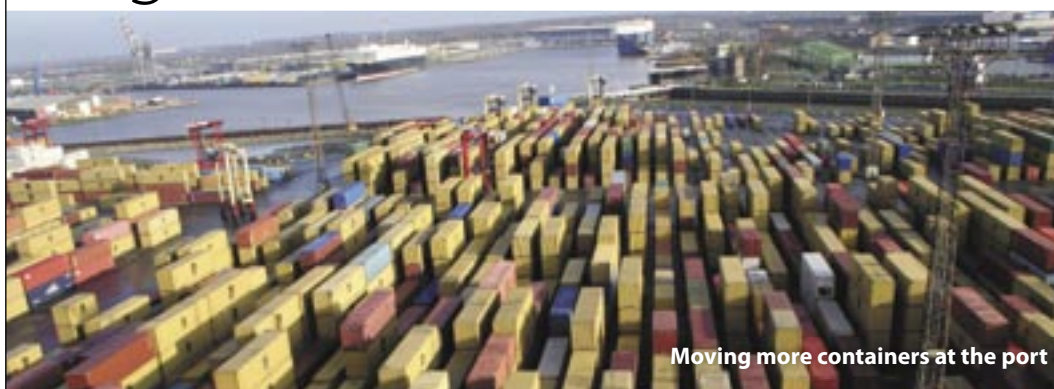
### APM MOVES INTO BAHRAIN

The Bahrain government has awarded a 25-year concession agreement to APM Terminals Bahrain, a joint venture between the AP Møller-Mærsk terminals subsidiary and YBA Kanoo Holdings of Bahrain, for the operation of Mina Salman and, from 2008, Khalifa bin Salman Port. The new \$500M port is under construction at Hidd, on an island linked by a 7km causeway.

### RREEF TAKES 49% OF PEEL

UK-based Peel Holdings, the ports, airports and property group, has sold 49% of its ports division to RREEF, a division of Deutsche Bank. The deal is estimated to be worth around £750M (\$1.42Bn). The ports include Liverpool and Manchester.

## Cargo soars at Bremerhaven



Moving more containers at the port

Bremerhaven's container volumes soared by a massive 20% to more than 4.4M teu last year, according to preliminary figures released by the Bremen state government.

Growth was driven by the port's two major customers, Maersk Line and MSC, both of which chose Bremerhaven as their German hub port.

"Other lines are also increasingly attracted by our central location between Antwerp and Hamburg," said Jörg Kastendiek, Bremen's minister of ports and economics.

Ro-ro traffic, Bremerhaven's second speciality, rose by 15% to around 1.85M vehicles, the minister said.

# China ports boom continues

Chinese ports are expected to be the busiest in the world for a fourth consecutive year as the country's trade booms, with throughput at the country's ports expected to reach 5.6Bn tonnes in 2006, an increase of 16.2% over 2005.

Cargo handled in Shanghai, China's leading economic hub, will top 500M tonnes in 2006, for the first time. The nearby Ningbo-Zhoushan port had already handled nearly 400M tonnes of cargos as of late November.

Some 93M teu are expected to pass through Chinese ports over the year, according to government sources – this

would represent an increase of 23.4% over 2005's figures.

In the first 11 months of last year the value of the country's exports grew 27.5% to \$875Bn, and imports rose 20.5% to \$718Bn over the same period, according to China's General Administration of Customs.

Full-year exports are expected to increase 27% to \$963Bn and imports to grow 20% to \$795Bn, bolstered by steady foreign demand and the robust local economy. All this activity means China dominates industries such as toys, with 75% of world output originating there, says the country's Chamber of Commerce.

## New port finance model

UK-based Halcrow has completed trials of its new port finance model against the background of increasing private-sector financing of port projects.

The financial viability of schemes, both new ports or extensions of existing ones, is of interest both to the private and the public sectors, Halcrow points out. Private interests need to determine whether sufficient profits can be made and public enterprises to ensure the right deal can be struck.

"The financial viability of schemes, whether it be a new port or extension of an existing one is of interest both to the private and the public sectors – for the former to help determine whether sufficient profits can be made, for the latter to ensure the right deal can be struck with a private-sector concessionaire," it said.

With increasing international trade, fuelled by globalisation, many predict that port capacity will record significant growth over the coming years. It follows that there will be greater need for financial advice. The model has been designed to cover all the key issues typically considered by investors, incorporating the cost of development, operational expenditure, anticipated traffic volumes and revenues. The port finance model can give a full range of projected financial results including profit and loss, cash flow, balance sheet, rate of return, net present value and payback period.







**Halifax: gearing up to welcome bigger box ships**

## Halifax gets deeper

The Halifax Port Authority has announced it will deepen the Pier C berths of its Southend Container Terminal facility, operated by Halterm, from a current depth of

15m to a new depth of 16m.

This will allow safer clearance for the keels of fully laden, post-Panamax vessels with a capacity of 8,000teu or more.

"Shipping lines are looking to the Port of Halifax because of our available capacity, and this further investment in our infrastructure will allow us to handle their business," said George Malec, vice-president, operations and security, Halifax Port Authority.

The dredging work to deepen the berths has already started and will be completed early this year. The estimated cost to the Halifax Port Authority for the dredging is Can\$1.5M (\$1.3M). The contract has been awarded to Harbour Development.

"Our business has grown substantially over the past year with the addition of new all-water Suez services from Maersk and China Shipping, and with the recent addition of two North Atlantic carriers, Europe West Indies Lines and Eimskip Americas," explained Doug Rose, president and CEO of Halterm.

## Maharashtra develops minor ports

Maharashtra state is pressing ahead with its policy of developing smaller ports alongside maritime hubs such as Mumbai and JN Port. The state government's chief secretary, DK Sankaran, said five ports are being built or upgraded to cater for the region's manufacturing and automobile industry.

Work on Rewas and Dighi ports has already started. The state government will invite private companies to tender for port projects at Jaigarh, Vijaydurg and Ratnagiri to be developed on a BOT basis.

Rewas will have 21 berths to handle 44.7M tonnes of cargo annually, while Dighi is to have six berths with an annual cargo handling capacity of 19M tonnes. No timeframe has yet been fixed for commissioning the ports.



## Portek. Full-spectrum port productivity solutions.

As global commerce continues to grow, the pressures for increases in port efficiency and capacity continue to build.

To meet the challenge, Portek offers the port industry a full 360-degrees of support— with equipment, large-scale modernization and modification engineering upgrades, parts and spares, plus a complete array of sophisticated IT, wireless, automation and security technologies.

We pride ourselves on providing high-productivity, yet cost-effective solutions that reflect the leading 'best practices' in port operations. We call it maximum-value thinking.

In all, we bring 18+ years of global experience in enhancing port productivity that has ranged from emerging markets to super-hubs.

So, when you're considering the best ways to capture a bigger share of the globalization marketplace, let's talk.

**PORTEK**  
KNOWLEDGE & SOLUTIONS IN PORT BUSINESS

www.portek.com enquiry-ph@portek.com Tel: +65 6873-1114



## Getting in on time

Vessel tracking can provide advance information to promote more efficient berth operations, with no surprises in knowing who is coming and who is going, as **Bridget Hogan** reports

**A**ll ports seek to use more tools to meet the tough challenges faced to keep both goods and people moving safely and efficiently through their facilities. Increasingly they are turning to automatic identification systems (AIS) to provide ship traffic information.

One of the obvious ways to improve safety is to set up a vessel traffic services (VTS) control centre. Many smaller ports that do not have the resources to implement full VTS are using AIS instead, according to Richard Silk, MD of UK-based AISLive.

"By using a single AIS receiver and linking it to a network of other receivers in the region, a low-cost

AIS solution can be provided," he said. "Use of AIS helps a port track vessels to ensure their waters are safe and helps in the management of berths, ensuring their full utilisation, minimising downtime and eliminating congestion."

Ports can set up a 'trigger zone' with email and mobile phone alerts to the control centre when expected vessels are within a certain range of the port. "This enables labour and support services, such as pilots, to be mobilised at the right time so there is no waiting for service providers or the vessel," Silk added.

AIS was originally developed as a collision avoidance tool and has since become an effective



## Use of AIS helps a port track vessels to make sure waterways are safe and helps in the management of berths, minimising downtime and eliminating congestion

short-range method of tracking ships, unlike LRIT, for which new requirements are being introduced by the International Maritime Organization later this year. The key difference between AIS and LRIT as methods of tracking is that AIS information is in the public domain whereas LRIT is a permission-based system.

However, Silk says that the picture with AIS has changed. "The creation of a network of antennas has already greatly extended the range for coastal regions. With offshore structures, aircraft, vessels and (for those who can afford it) satellites, there is no reason why AIS cannot be used for longer-range tracking.

"Directional antenna, more sensitive receivers and sophisticated programs used to re-assemble partial data packages will greatly increase the range from which useful AIS data can be received," he continued. "The protection of offshore structures, remote monitoring of areas containing sub-sea power and communications cables, integration with port management, dues, lights and operations systems, emergency response applications, chartering systems and even integration with land-based logistics systems, all can make use of information derived from AIS."

He added that there were "significant benefits" to ports from having access to timely, accurate and properly managed information, and AIS forms an important part of this information picture. "AIS, if properly used, is a reliable and effective means of collecting data and it would be negligent not to make use of it."

AIS has the added advantage of being provided in a uniform format that can be processed quickly and easily, as well as providing additional information that can also be used to validate existing data.

Silk pointed to other transport sectors where it is common practice to make schedules widely available. Air traffic movements are monitored live on the internet and railway networks also provide this kind of information.

Northport in Malaysia has installed AIS as part of efforts to increase efficiency, productivity and to reduce vessel turnaround time. With real-time information, particularly on the exact location of the ship, Northport expects to reap benefits in terms of planning vessel arrival at berths, the co-ordination of facilities and rescheduling of services according to assistant general manager, marine services, Captain Zuradi Zainol.

He also welcomed the ability to monitor ships' locations and speed, in all weather conditions. The port will also be able to track emergency responses and get precise information of hazardous cargoes, he said.

He regarded it as a value-added service that would directly benefit Northport's customers. Information provided by the system would help scheduling of vessels' arrivals and departures.

The Port of Antwerp (POA) has just completed a €4.2M (\$5.5M) project, jointly commissioned with the Flemish agency for maritime services and the coast, shipping assistance division, which it says will offer an "innovative and reliable" traffic control system to enhance safety at Europe's second-largest port. Barco, together with Fabricom GTI, has been selected to install the VTS.

Explaining the decision behind the project, Ivo Koeklenberg, the port's chief engineer-director commented: "To sustain a strong market position, POA needs to guarantee the safety of vessel traffic as well as smooth cargo operations for our customers."

The contract included the provision of six port radars and multiple traffic display systems at different locations in the Antwerp port area to provide operators with a complete traffic image. Operators and authorised stakeholders will be able to access all traffic information via the internet, including high-resolution radar video, radar tracks and AIS information.

The Saudi Ports Authority (SPA) says its new VTS and AIS systems, to be supplied by Norway's Kongsberg Norcontrol IT and its partner, National Advanced Systems Company (NASCO), will help increase safety, efficiency and security. An SPA official said the new systems will help control vessels, including tankers and small craft, around Dammam Port, Jubail Industrial Port, Jubail Commercial Port, Jeddah Islamic Port, Yanbu Industrial Port, Yanbu Commercial Port, Doha Port and Jizan Port.

Kongsberg is also behind a project in East Africa to supply Tanzania Ports Authority (TPA) with VTS for the Port of Dar es Salaam. The port is experiencing growing throughput and is an important transit port for neighbouring countries. With this high level of activity, TPA saw the need for VTS. Once again, its requirements are to track vessel movements within the service area and to help ensure efficient turnaround times.

"In addition to achieving increased safety of all ships within the responsibility area, the system will also ensure security against piracy and robbery at the Dar port outer anchorage," said Eivind Solberg, key account manager for Kongsberg. **PH**

More info: [www.aislive.com](http://www.aislive.com)

[www.barco.com](http://www.barco.com)

[www.fabricom-gti.com](http://www.fabricom-gti.com)

[www.norcontrolit.com](http://www.norcontrolit.com)

[www.nasco.com.sa](http://www.nasco.com.sa)

Photo: Peter Barker

**Safe progress:  
AISLive helped  
Southampton with  
vessel tracking**



## Keep on moving

A system to reduce congestion and improve the transit of ships through the busy Panama Canal, has lessons for ports, as **Martin Conway** reports

**W**ith an annual tally of 5,000 vessels, making over 14,000 transits, the 77km-long Panama Canal forms one of the world's busiest maritime waterways and is a significant channel for world trade. Invariably, this zone also runs the risk of vessel congestion and represents an obvious safety and security concern, as any accident or attack could cause disruption, with significant repercussions for world trade.

Plans have been approved for a \$5.25Bn expansion of the canal, which will allow larger vessels and all ships in greater numbers to transit the waterway. But that still leaves the Panama Canal Authority (ACP) with surges in traffic levels at critical times.

In order to cut down on delays experienced by vessels looking to transit the canal, ACP decided to invest in a long-range vessel tracking system to monitor the positions of vessels using the canal. ACP

selected Inmarsat partner New Zealand-based Absolute Software for a six-month trial of the scheme that included monitoring vessels' approach to the waterway and allowing detection and analysis of traffic patterns to prove its tracking capabilities using the Inmarsat C service.

Jeff Douglas, chief executive of Absolute Software, said: "To participate, vessels need an Inmarsat C system, which can be fitted as part of the global maritime distress and safety system (GMDSS) or a ship security alert system (SSAS). An automated identification systems (AIS) transponder is optional, but not necessary." Douglas explained that vessels are not monitored constantly, but only for a week before they arrive at the canal, to determine their ETA.

Based upon the results of the trial, Douglas reported that ACP is already using the information it has gained. This includes details of water flow



## Tracking, combined with direct communication with the vessels, will help stave off congestion until the year 2013

patterns, ship capacity constraints and fluctuations in arrival times. Together, these have given the canal authority a useful management tool.

"The water level of the canal is affected by the climate and heat, and can decrease during very hot times of the year," he said. "ACP will be able to use this information to plan ahead for potential vessel congestion during certain days and seasons and maximise the efficiency of the locks to optimise water management."

Management of the project in Panama has been undertaken by Henry Stec, head of ACP's electronics and telecommunications department. "Congestion is mostly related to periods of lane outages for maintenance," he said.

"We are making major improvements in the canal in order to ease some existing restrictions. Currently ship arrivals vary from day to day and this results in wasted capacity. We think that long-range tracking, combined with direct communication with the vessels, will help stave off congestion until the year 2013 or so."

The Inmarsat C-based tracking system can also be used to make notes of vessel type, which can be used as a safety tool. The canal operates a 'buffer system' for hazardous cargoes. This ensures, for instance, that a chemical tanker cannot be followed into a lock by a passenger ship. Users can now ensure that 'hazchem' carriers are followed first by tankers, then container vessels, before passenger vessels are finally allowed through the locks.

The trial period has also thrown up some unexpected results. "We were expecting ships to come in on their transit slots, but found that a few were arriving two hours earlier than the times for which their slots were marked," said Douglas. So it would appear that the system has identified that over-enthusiasm can cause disruption as much as tardiness.

According to Brian Mullan, head of maritime and aeronautical safety services at Inmarsat, the Inmarsat C service is well suited for this application, as over 70,000 units are active. "Inmarsat C is more than adequate for long-range tracking, and can assist ACP in making sure that vessels arrive in the canal in the correct sequence.

The vessels' specific identifications, latitudes and longitudes, and the dates and times of their present positions, are transmitted to the Absolute Software tracking database."

Inmarsat C is also used by the International Maritime Bureau's Piracy Reporting Centre in Kuala Lumpur. The centre utilises the service to broadcast updates on reported pirate attacks and sightings to ship operators equipped with Inmarsat C terminals, rather than to track vessels. However, tracking would be possible in enclosed areas, such as the canal.

"This makes Inmarsat C ideal for enhancing coastal and port security," stated Mullan. "If you know which ships are heading to your port, you can concentrate on monitoring 'unknown' vessels, by deploying air surveillance, for instance." The system can store historical details of tracked vessels and give users easy access to data.

This view is endorsed by Douglas, who has previous experience of supplying services for governmental monitoring of fishing vessels within exclusive economic zones. "Regulations mean it is mandatory to track most fishing vessels. It's a small leap from this to the provision of a wider, security-focused monitoring system," he says.

It is likely that, as with other technologies, ports are only beginning to take advantage of the technology available and will see more applications and benefits in the future.

Ports will be watching US Coast Guard plans to bring in long-range identification and tracking in April, ahead of the IMO's January 2008 deadline. Experience there could help in technological and practical application of the system. **PH**

*Martin Conway is editor of Via Inmarsat magazine*

*More info: <http://safety.inmarsat.com>;*

*[www.pancanal.com](http://www.pancanal.com); [www.absolute.com](http://www.absolute.com)*

*A similar article first appeared in Via Inmarsat magazine*

**Squeezing in:  
vessel tracking is  
easing congestion  
at busy times**

## Dates for installation of AIS

- Passenger ships and tankers 1 July 2003
- Ships of 50,000grt and upwards 1 July 2004
- 300grt and upwards but less than 50,000grt by 31 December 2004
- SOLAS Chapter V gives maritime administrations power to apply rules to ships below 150grt on all voyages and ships below 500grt not engaged on international voyages. AIS can, therefore, be applied to a wider range of smaller vessel categories including fishing vessels, recreational craft and port services vessels.

## Canal expansion

The people of Panama have voted overwhelmingly for the \$5.25Bn expansion plan to provide:

- New locks, 427m long, 55m wide and 18.3m deep, for post-Panamax vessels up to 12,000teu
- 3.2km navigation channel from Gatun Lake to the Atlantic
- 5.8km navigation channel connecting with Gaillard Cut
- 1.3km navigation channel connecting with the Pacific Ocean
- New navigation channels of 218m wide
- Canal draught 15.2m
- Canal entrances to: 25m in width and 15.5m in depth



Photo: Snorre Hultgren Navjord

# Plotting a NEW course

A new intermodal transport corridor could cut freight transit between the US and China in half, as **Tove Irén Becker** reports

**T**he northern east-west freight corridor – NEW – is planned to link the North American East Coast to Russia and central Asia, using railways that serve the Port of Narvik in northern Norway. It could be an alternative to shipping via the Barents Sea, or a supplement to some of the existing container routes.

The project started 10 years ago in the Narvik and Barents Sea region and local efforts there were reinforced by those of the Paris-based International Union of Railways (UIC) five years ago. The project now involves transport ministries from all surrounding

areas – the US, Canada, Iceland, Norway, Finland, Russia, Kazakhstan and China.

NEW has also attracted the interest of retail and distribution giants IKEA, General Electric, JC Penney, Wal-Mart and SEARS. All find appealing the promise of getting their Chinese-made goods to stores cheaply and quickly.

The aim of NEW is to reduce the distances these goods have to travel to market and to utilise less-congested routes, Narvik's port director Rune Arnøy explained. Once opened, he expects a container to



■ Retail and distribution giants IKEA, General Electric, JC Penney, Wal-Mart and SEARS are attracted by the promise of getting their Chinese-made goods to stores cheaply and quickly ■

take 25-30 days from certain parts of China to the East Coast of the US. This would rival the very fastest times from major ports in China now, although some all-water transits can take up to 35 days.

The main objective is to move consumer goods from China to the US avoiding congested European container ports. Containers will be transported by rail from China to Narvik. Some will then be sent to central areas of Europe by the Arctic Rail Express from Narvik through Sweden, or on proposed shortsea shipping routes from Port of Narvik.

Work has started to transform Narvik from a local and regional gateway to one that better suits its expected international status. Construction of an international intermodal container terminal started in May last year and will be in operation by early 2009. The first phase covers 45,000m<sup>2</sup> – with plans to develop further.

Narvik had a head start in getting approval for the project. It is the only Norwegian member of the Coordinating Council on Trans-Siberian Transportation – a special-interest organisation that promotes the trans-Siberian rail route. It is also a gateway for the Trans-Siberian Railway.

There is a strong interest in the project in western China, where enterprises that are based far inland want to utilise the rail link to Europe and Scandinavia, then transshipping to North America by sea. Higher real estate prices and lack of land for expansion at traditional industrial sites in China is forcing production to move farther inland. In addition, the main ports are becoming increasingly congested.

Narvik-based NEW Corridor, formed mid-way through 2005, is co-ordinating the project at the port, working with the main office in Stockholm. MD Christer Beijbom and business manager Odd Karlsen told *P&H* that the Chinese government is positive about the developments, and a letter of intent for participation at several levels has been signed. It includes, for example, operational details of rolling stock and price guarantees.

The letter of intent has opened the channels for NEW executives to work on difficulties in the project – including the Chinese border crossing, tracing, documentation and capacity – so these can be overcome before the links are opened.

By contrast, there has been a lukewarm reaction from Russia, even though it joined the UIC last year. So far, it has only reluctantly participated in the project. Karlsen believes the Russian government is determined to reserve trade for its own ports.

Nevertheless, the latest signs are that Russia is

now coming round to the project and will open up the possibilities for dialogue. NEW faces different and similar challenges in Russia to those it faces in China. A different business climate – linked to the political scene – is new. Operational problems to do with documentation to ensure smooth border crossings are all too familiar. By contrast, governments in Finland, Sweden and Norway are all positive.

In this initial phase the Narvik company is jointly owned by the Nordland County Council and the UIC, but soon it plans to issue new shares and invite more shareholders into the company. Later, as further phases are undertaken, it will seek more commercial partners because more funding will be needed.

NEW has attracted some support from the EU's Motorways of the Seas programme, but still more funds are needed. Much of the responsibility for this task lies with Beijbom. He is looking for funds both for the start-up work and for operators willing to undertake the ocean leg of the corridor.

The EU has been convinced that NEW has a contribution to make in promoting intermodal transport, relieving congestion and as a development tool to promote outlying regions of Europe.

The Norwegian government has committed to help set up the freight corridor, smoothing the way for developments to take place, contributing to investment and the development of infrastructure. It has been active in negotiations with other governments, particularly in the areas of border crossing formalities and the use of infrastructure.

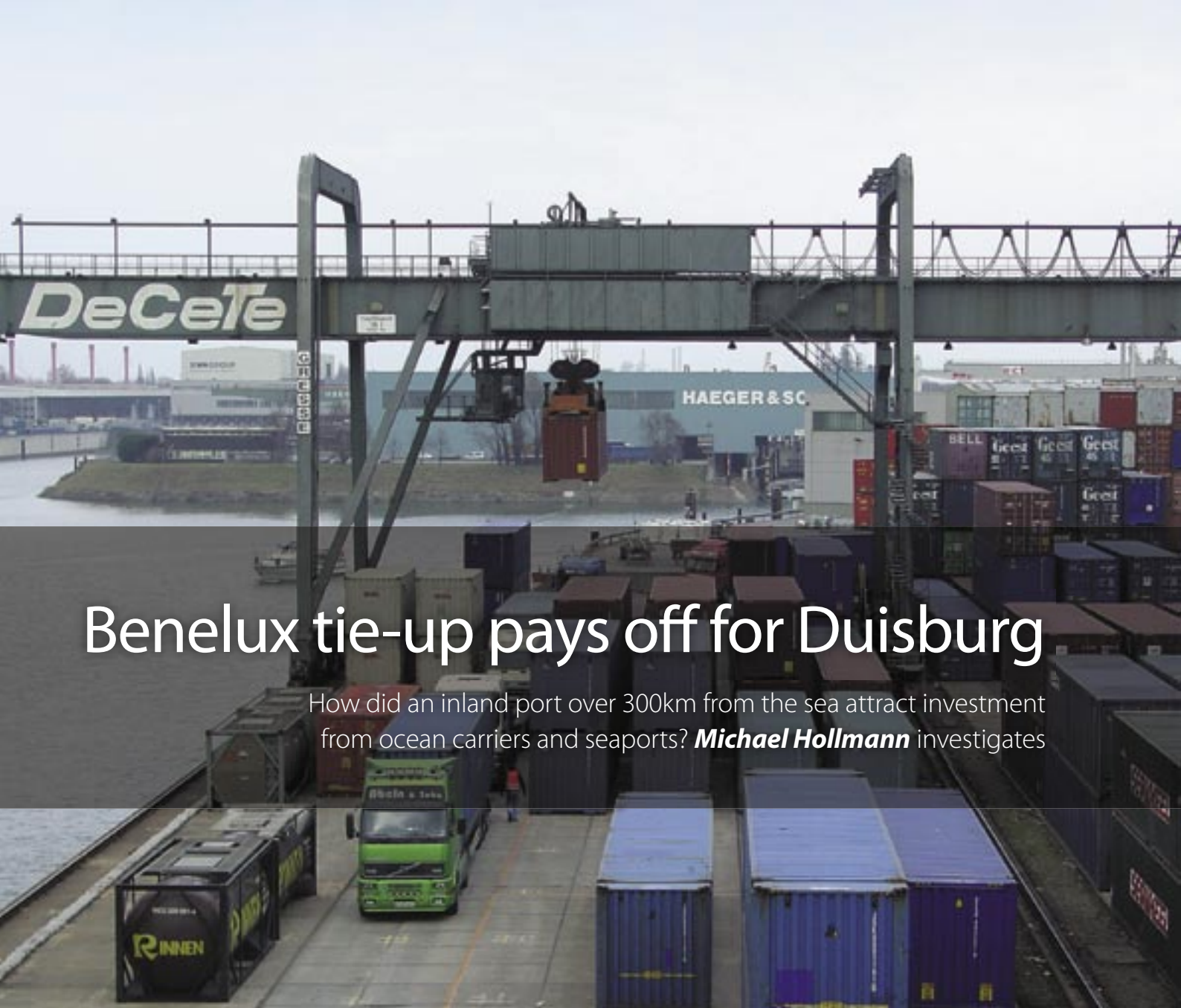
It feels that efficient transport corridors are in the interest of both the public and private sectors, and will depend on close cross-border co-operation. The Norwegian Ministry of Fisheries and Coastal Affairs co-ordinates the Norwegian government's efforts on these subjects, both nationally and internationally.

For NEW to succeed Narvik must be turned into a modern, efficient intermodal port. The capacity of the port has to be considerably expanded. The Ministry of Fisheries and Coastal Affairs wants to co-operate with local and regional government, private participants and the Port of Narvik to achieve this.

In tandem with NEW, Narvik and forwarder Nord Norsk Spedisjon have developed a separate regional railway project – BEAR, the Barents Euro Arctic Rail. This project could feed traffic into NEW. BEAR could open up markets in Sweden and Finland for developing industry in Moscow and Archangel. **PH**

More info: NEW: [www.new-corridor.com](http://www.new-corridor.com);  
Port of Narvik: [www.narvikhavn.no](http://www.narvikhavn.no)

**Waiting for cargo at the ice-free port: from left, Narvik's Ivan Jorgensen, Odd Willy Karlsen from NEW Corridor and Rune Arnøy of the port**



# Benelux tie-up pays off for Duisburg

How did an inland port over 300km from the sea attract investment from ocean carriers and seaports? **Michael Hollmann** investigates

**O**cean container logistics has proved the salvation of one of Germany's most hard-pressed regions, some 320km inland. There was little hope for Duisburg throughout much of the 1980s and 1990s as the steel and mining industries that made its original fortune went into decline.

Today politicians and city planners can be justly proud of taking the right decisions to reverse this decline. Instead of clinging to Duisburg's heavy industry heritage they set out to transform the place into a service-oriented logistics hub.

Years of planning, redevelopment and marketing have led to success. "We have become the top inland port among the world's top 100 container ports," reflected Erich Staake, CEO of port management group Duisburger Hafen (Duisport).

Last year 712,000teu were handled by its three large container terminals, DeCeTe, Duss and DIT, which combine barge, rail and road capabilities in a trimodal fashion. "Given the positive developments so far, we expect to see a marked increase again in 2006," Staake predicts.

Hundreds of trimodal services arrive and depart

from the German city. Given its favourable location on the Ruhr and Rhine rivers, barge transport to and from Rotterdam was one of the first links.

Local steel producers such as the ThyssenKrupp mills led the way by sourcing coal and ore by barge. Now the focus has shifted to containerised goods that require distribution, finishing or on-carriage to consumer markets across Europe.

After several years of double-digit growth, unitised cargoes such as standard containers and vehicles account for half of all throughput in Duisburg. "We now see rail services taking an ever bigger piece of the action," observed Staake.

A range of new shuttle services to Antwerp and Zeebrugge have recently been launched. Both destinations are served by block trains four times a week and the list of participants in both projects gives a clue as to the identity of Duisburg's main target groups.

Container lines such as CMA CGM and port and terminal managers such as the Port Authority of Bruges-Zeebrugge are involved. Both stakeholders represent important links to overseas container logistics chains that extend deep into inland markets. The overall



## ‘ The inland port provides links for overseas container logistics chains that extend deep into inland markets ’

efficiency of these chains (including repositioning of the equipment) depends to a large extent on well-functioning hub and spoke systems in the hinterland that are centred on linchpins such as Duisburg.

That is the reason why no carrier or logistics group ambitious to control the entire door-to-door intermodal flow can afford to ignore the hinterland hubs. That is where the containers are transhipped, sorted or stripped and where the products are stored, picked and packed for distribution.

“The carriers’ mindset is clearly changing. They are much more interested in the hinterland and come to us to discuss new solutions,” noted Staake. One of the pioneers of the new strategy is Japan’s NYK Line, which was rebranded in 2001 as NYK Megacarrier & Logistics to reflect the group’s new strategic focus.

A block train service dedicated to the company connects Duisburg with NYK’s Ceres container terminal in Amsterdam. Its subsidiary NYK Logistics also operates a massive warehousing complex in Duisburg, offering an array of value-added services to ocean freight customers and on-carriage options to 70 European destinations.

Ocean gateway ports eager to increase their throughput have meanwhile realised that Duisburg has to be a vital part of their hinterland strategy. Its strategic location and access to fast, high-density cargo lanes allow them to reach markets they could not serve otherwise.

“Take the example of Central and Eastern Europe, which is mainly served by Hamburg due to its geographic advantage,” Staake pointed out. He said it is hard for Rotterdam, Amsterdam and Antwerp to penetrate the market, because there is not enough volume to fill daily block trains into places such as Warsaw.

“Here we can act as a door-opener,” he explains. If they all put their Eastern Europe cargoes together in Duisburg they will achieve the critical mass required for an efficient, low-cost rail shuttle on that corridor.

“And you need that to be able to compete with Hamburg,” he said. Staake provides compelling reasons, but his concept has not made a full breakthrough yet, he

admitted: “There is no room for complacency.” He puts the partial success down to several factors. Sometimes there is a lack of co-ordination in the seaports and at other times political resistance.

Transshipment business with Antwerp, for example, has been “ridiculously low” and is only now picking up, he said. In order to get the business off the ground, Duisport took a bold step and acquired a minority stake in P&O’s (now Dubai Ports) Antwerp Gateway, which opened in 2005.

It was probably the first time that an inland port – a satellite in the interstellar world of container transport – became a stakeholder in a fully fledged ocean terminal.

“However, if you believe that a shareholding will automatically generate business you’re on the wrong track,” Staake cautioned. “You have to keep putting in a lot of time and effort to move forward.”

Terminal congestion in 2004 dealt a tough hand to seaports – which may now be starting to see the need for inland partner hub. Couldn’t the ports be so much faster and more productive if they had more strategic buffers in the hinterland?

Scientists at Erasmus University in Rotterdam have been putting forward this idea for some time. They point out that Duisburg provides terminals at seaports with valuable storage space and it can also take over many “sorting functions”, Staake pointed out.

If ports dispatched discharged containers immediately to Duisburg by train and barge instead of storing them in their yards, they would have more resources to focus on what they do best: ship-to-shore operations.

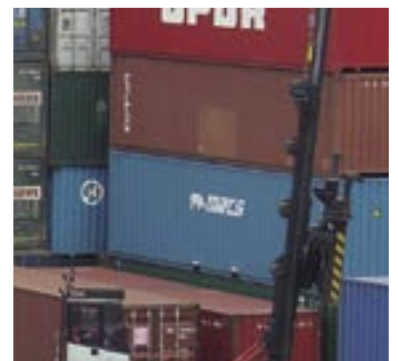
It also works the other way around. “If we consolidate homogeneous container cargoes for the barges operating into Rotterdam, then barge traffic could be rationalised tremendously,” Staake explained.

Vessels could then just serve one terminal, whatever their loading patterns, so reducing overall intra-port traffic on a region. Ports like Rotterdam and Antwerp are already engaged in related projects.

Could Duisport be the missing link they have been looking for? **PH**

**Duisburg is helping ports like Rotterdam and Antwerp to expand into Central Europe**

Photo: Michael Holmann



# Restructuring leaves us ready for business

Intense competition has forced major changes at Dunkirk. **Jean-Claude Terrier** documents the process



Dunkirk: a major overall of activities  
saw cargo rise 60% in 10 years

Photo: BDL



For the past 15 years the Port of Dunkirk has faced up to significant challenges from a changing economic environment locally and changes in the neighbouring ports with which Dunkirk is in daily competition. This has forced the port to look long and hard at its activities.

Dunkirk is geographically very close to ports such as Antwerp and Rotterdam, where South East Asian interests have invested massively in recent years, notably in the provision of container terminal facilities.

Located in the northernmost corner of France, only a few kilometres from the Belgian border, Dunkirk is France's third most important port. Last year it handled about 56M tonnes. It does not have a captive hinterland, so is very exposed to competition and needs always to be on the ball to maintain and expand its activities.

It does so, and rather well, as its traffic has grown continuously, expanding by 60% over the past 10 years.

The competitive environment has led to a major overhaul of the port's organisation. Dunkirk is undoubtedly the French port that has pushed its organisational reform to the furthest extent, through agreements on new working practices made as far back as 1992 between stevedores and dock workers.

On the one hand, these agreements have provided consistency of work, registering not one dock strike in more than 14 years. On the other hand, working restrictions limiting cargo handling to the port area alone have ended – a boost to the development of logistic activities warehouses outside the terminal's gates.

Helpful though the 1992 agreements were, they were not in themselves sufficient to stimulate growth at the port. Major reforms in the relations between the port authority and the stevedoring companies followed, once they agreed full-time employment of dock workers.

Having secured the management and control of the workforce, the next logical step was to ensure that stevedoring companies had the facilities they needed. So began the privatisation of the port authority's facilities, including berths, quayside areas, storage parks and storage sheds.

This was a major precedent in France, where most cargo-handling and storage facilities belonged to the port authorities. These were rented to stevedores, but continued to be operated and maintained by port authorities.

Dunkirk moved further into reform when it developed its Western Port, to include not only bulk cargoes – for which it was well-known – but containers, then only a marginal trade. For the first time, it allowed private-sector ownership of superstructure facilities.

This was implemented through the creation of

single unified operators, in 1999 at the Western Bulk Terminal and in 2001 at the container terminal. These new concerns are jointly owned by the stevedoring companies as majority and the port authority as minority shareholders. They hold concessions from the port authority and employed 100 of the 700 port workforce who agreed to be transferred to the new private enterprises, switching the employer and collective bargaining convention.

With this settled, the port authority was able to concentrate on its role as infrastructure provider. Two new deep-draught quayside berths, suitable for ships drawing up to 16.5m, were built at the container terminal. More changes have taken place recently – ownership of this terminal is now shared between APM

Terminals (61%), Terminal Link (part of the CMA CGM group – 30%) and the port authority (9%).

The port has also reacted to the increasingly specialised maritime world in which it finds itself. Container shipping may be the best example of this trend, but it is not the only one. Many cargoes that once were shipped by conventional breakbulk ships now need dedicated port facilities, including the major dry and liquid bulks, steel products, minor dry bulks, chemicals and ro-ro cargoes.

Dunkirk has seen a marked drop in the throughput of conventional cargoes handled the traditional way at non-specialised terminals and a related decrease in the use of the general, unspecialised facilities it offered.

Between 2000 and 2006 the number of cranes operated by the port fell from 30 to 12, a reduction that was accompanied by an extensive renewal of the remaining equipment. The small 10-tonne cranes on rail tracks have been decommissioned. New mobile cranes on tyres, with lifts of 6 to 100 tonnes, have been purchased together with other specialised equipment for specific traffic. A gantry was installed in the steel terminal and single- and double-decked ramps at the ro-ro terminal.

The port authority has increased its role in other areas, including security, development of industrial and logistic zones, management and development of the port's road network and, most recently, of the port rail network. So far, 230km of railway tracks have been transferred to the port.

Given the size of the port area – it covers 7,000ha with a 17 km North Sea frontage – its activities require appropriate human resources. From 800 in 1994, the number of employees has been reduced to 500, while traffic increased from 37M to 56M tonnes.

The nature of employment has changed too. This has involved a reduction in manual labour and an increase in management, innovation and forward-planning posts. The number of supervisory positions has remained steady.

Dunkirk's business community has been supportive of the drive to expand traffic. In response, the port authority has expanded its commercial department to 30.

It undertakes the marketing of the port estate and of the port's facilities, seeks out new shipping lines and new traffic, undertakes public relations and communications activities and sends out trade delegations and marketing missions.

The harmony that exists between the port authority and its private and public partners is undoubtedly one of the best guarantees for the continuation of the development of the activities of Dunkirk. **PH**

*Jean-Claude Terrier is MD of the Port of Dunkirk Authority  
More info: [www.portdedunkerque.fr](http://www.portdedunkerque.fr)*





# Ports get logistical

The major port cities are reinventing themselves as logistics centres, as **P&H** explains



**T**he more advanced city ports are undergoing a transformation. They are no longer just about the movements between ship and shore. Increasingly they are becoming centres for global and regional logistics, integrating all transport modes to offer customers uninterrupted freight movement.

In Japan it all started a little over a decade ago when an import promotion policy, backed by legislation, helped the country's ports adapt to changing trade circumstances as the country's trade surplus reduced. The policy also helped in the regeneration of local economies around ports.

It has taken detailed legislation and investments totalling billions of dollars, but a government initiative to create logistics centres – called foreign access zones (FAZs) in Japan – has helped ports capitalise on the country's burgeoning import trade, which has nearly doubled in 13 years. The FAZs have done much to cement the fortunes of the ports where they are located.

Revisions to Japan's import promotion policy started with special measures taken in 1992 in the form of the Foreign Access Zone Act. This was drafted against

a background of changes to Japan's trade structure, which threatened to have serious repercussions for the country's economy.

For more than 100 years Japan exported finished products made from imported raw materials, but during the 1990s the trade balance started to shift. In 1994, the volume of imported containerised cargo exceeded that of containerised exports for the first time. This gap has continued to expand and reached 30M tonnes in 2004 as the Japanese people consumed more and more toys and clothes from abroad. Finished products made up 22.9% of imports in 1980, but the proportion climbed steeply to 58.7% by 2004.

Trade lanes were changing too – in 1974 North America was the largest supplier to Japan of finished products, providing 45.6% of total containerised imports. By 2003 most consumer products originated in Asia, making up 70.5% of containerised imports.

All this could have had a serious effect on the Japanese economy as it struggled against the steep appreciation of the Yen in the 1970s and 1990s. Under the provisions of the act, local authorities were encouraged to devise



## Investments of billions of dollars to create logistics centres has helped Japanese ports capitalise on the country's burgeoning import trade

plans for FAZs and submit them for government approval. Once it had gained approval, the enterprise was eligible for financial subsidies from the government in the form of direct investment or liability security. Other incentives included exemption from property and local government taxes. All loans were long-term and at low rates of interest from state banks.

To complete the package, new legislative measures were introduced in Japan's Customs Code and quarantine rules to smooth import procedures. This set up comprehensive bonded areas, enabling importers to pick up, store, process and exhibit their imported goods without the need to pay duty at that stage. A total of 31 facilities was built in the 24 FAZ areas, at a cost of \$4.2Bn.

One of the earliest to take advantage of the new conditions created by the act was Yokohama Port International Cargo Center (YCC). It was set up in 1992, backed by the local governments of Kanagawa prefecture and Yokohama City.

In August 1996, YCC opened for business with new \$514M facilities adjacent to the Daikoku International Container Terminal in Yokohama. This provided the region with a 320,000m<sup>2</sup> logistics complex, which has proved popular with food importers, processors and distributors. It is occupied by 29 companies that operate 24 hours a day, seven days a week before distributing their goods around Tokyo and Yokohama via the nearby Tokyo Bay-Area Express Way.

Most cheese sold in Japan is processed. Traditionally, this took place in the country of production. The favourable FAZ conditions established in Japan have led to another successful port logistics operation.

This is JCC, set up to process cheese and which now processes over 10% of the country's total imports of natural cheese – about 7,500 tonnes a year. Annual consumption of processed cheese in Japan currently amounts to about 270,000 tonnes, most of which is imported from Europe and Oceania.

The company was established in 1985 with Mitsubishi

Corporation as major shareholder. Its waterfront factory is next to the Daikoku International Container Terminal where 71 employees process cheese in a two-shift, 24-hour operation with an annual turnover of about \$39M.

In 2003, JCC moved from an outdated factory in downtown Tokyo to the new complex, a bonded chilled warehouse. JCC says that it has made major savings in transport costs because the cheese is no longer moved long distances from the import container yard to the factory. As the factory is part of the chilled warehouse, the quality of the unprocessed cheese is maintained and the product does not undergo abrupt changes of temperature when it is moved to the processing area.

Organisation of cheese processing has also been made more efficient. Only the amount of product needed for that day's use needs to be picked up from the neighbouring warehouse, which keeps to the minimum the volume of stock that has to be stored in the factory.

At the Port of Kawasaki investments of \$335M delivered enormous logistic facilities intended for storage, processing and distribution of imported goods on the waterfront. These make up the Kawasaki FAZ (K-FAZ), set up in 1995 in an initiative by the local governments of Kawasaki City and Kanagawa prefecture.

After arrival at the Kawasaki International Container Terminal, imported goods are transported to K-FAZ for unpacking and processing under special comprehensive bonded area legislation. Import food processors can use the facility's power and sterilised water supply, and steam is available so that imported clothes can be ironed.

The building is designed for easy conversion to reefer storage, and several food importers have moved in. The 18 tenants, with 1,600 employees, operate import processing and distribution 24 hours a day, seven days a week.

This has led to a growth of reefer storage facilities centred on Kawasaki, where refrigerated and chilled warehousing amounts to more than 710,000m<sup>2</sup> – nearly half of all warehousing in Kanagawa prefecture. Importers and distributors are able to take advantage of locating in

**Barcelona has benefited from the extra trades its logistics platform has attracted**

**Increasingly garment finishing is taking place near ports**



### Barcelona ZAL

#### ZAL I

Total area:	208ha
Warehouses:	250,000m <sup>2</sup>
Offices:	45,000m <sup>2</sup>
Companies:	80

#### ZAL II (2009)

Total area:	143ha
Warehouses:	500,000m <sup>2</sup>
Offices:	65,000m <sup>2</sup>
Companies:	120

## Ports need to offer the same competitive advantage and efficiencies to industry as product innovation and production

the area by using the same reefer warehouses.

One prominent company that utilises K-FAZ to the advantage of its business is Across Transport, a distributor of brand garments such as Polo by Ralph Lauren. The company uses the facility to check every piece of apparel imported from various factories in Asia to verify that tailoring specifications have been met.

Its exhaustive process uses x-ray detectors to see if any needles have been left in the clothing during manufacture. Finishing of clothing – including sewing and ironing by specialists – is undertaken on site.

Processing of the imported garments systematically and effectively at a single site contrasts with the way the company operated in the past. Previously, imported garments were sent to various modification sites located all over the region.

Centralisation in K-FAZ has resulted in “huge” cost and time savings, the company told *P&H*, as there is now no need for unnecessary transportation around the region. Once finished, the garments can be distributed to final users in the metropolitan markets of Tokyo and Yokohama in one hour.

In Europe, massive developments are under way to help ports benefit from the extra trade that logistics platforms can bring when customers are offered the opportunity for added-value activities. One of those that has led the way is the Port of Barcelona (ABP).

“More and more companies compete not only through products but also through supply chains,” says ABP. Ports need to offer the same competitive advantage and efficiencies to industry as product innovation and production, it adds.

So, the port has set up a series of initiatives to keep itself at the forefront of the global supply chain. The city and area is known for its economic clusters covering information technology, automotive and auto suppliers, graphic design and electronics.

Positioned on one of the main corridors for import and export goods to and from Asia, Barcelona has become one of the largest distribution centres in the Mediterranean region and sees itself as a stepping-stone to North and Latin America.

ZAL-Barcelona is a logistics park based near the port, which is being developed in two phases. Phase one has been operating for six years and phase two is 30% built. When completed in three years' time it will be a centre for 12,000 employees servicing 10,000 trucks a day.

In another initiative that has interested the industry, free trade zones (ZAL) are being developed some distance from the ports at Zaragoza and Toulouse.

Behind the strategy was a desire to bring the port and port services closer to the operators and end-users. First opened, in March 2001 was the Zaragoza Goods

Terminal (tmZ), designed as a platform for imports and exports destined for the Spanish provinces of Aragon, Navarre and La Rioja.

The tmZ project includes a specially designed railway terminal, which takes advantage of Zaragoza's strategic location on the Barcelona-Madrid-Lisbon rail corridor. This is generally considered to be the nerve centre of the Iberian Peninsula's northern communications network and provides an intermediate terminal for transport to the whole of Spain and Portugal.

Even more dramatic was its decision to set up a similar initiative, the Toulouse Goods Terminal (tmT), in the south of France, in a drive to forge closer links with potential customers to the French Midi. ABP says that it expects tmT, which covers 20ha, to extend the port's area of influence and bring ports services closer to the freight agents located north of the Pyrenees.

In a third project, the principle has been applied at the Madrid-Coslada dry port, which ABP has developed with two other Spanish ports. It is also investigating similar projects in Lyon, Perpignan, Casablanca and Tangier.

Logistics transport providers are working to reduce inventory costs and transit times for their customers, who include some of the most demanding retailers. One UK-based freight forwarder, Davies Turner, has seen rapid development of its overseas 'point of origin' warehousing networks.

They have been set up by its fashion logistics division so textile or garment shippers can collate and consolidate goods before despatch. At present, the service is based on goods coming in to North Europe from countries around the Black Sea and Mediterranean, from North Africa to the Balkans, including Romania and Bulgaria. This is now extending to the main supplier regions of South and Southeast Asia.

The growing network reflects the trend towards more sophisticated supply chain management solutions. In this case, the system was designed to help traders ease uneven delivery and despatch flows from suppliers, which can play havoc with stock replenishment schedules. It also allows them to add value by finishing individually according to the latest demand.

Philip Stephenson, joint MD of Davies Turner, commented: “Our facilities, such as our Turkish partner's new hanging garment warehouse, are complete with interactive access so that shippers can easily check the progress of their orders and consignments.”

It is more expensive to make garments in Eastern European or Mediterranean countries than in some parts of the Far East including China, but stores see advantages from gains in transit and response times. These ensure goods can be delivered to North European distribution centres and retail outlets to cope with surges in demand.

Davies Turner has chosen to site its warehouses very close to ports for speed of transit and says the trend is towards warehouses designed for finishing and rapid throughput as much as storage. **PH**

[www.kawasaki-faz.co.jp/Eng](http://www.kawasaki-faz.co.jp/Eng)

[www.apb.es](http://www.apb.es)

[www.daviesturner.com](http://www.daviesturner.com)





**Leaping ahead: a train at Bullfrog Junction, part of Tacoma's rail improvement programme**

## Staying on the right tracks

Developing new terminals to stay ahead of surges in cargo is only part of the story for ports battling to maintain efficiencies in the logistics chain, as *Bridget Hogan* finds out

**T**he northwestern US port of Tacoma declares that it aims to be the one of the most efficient and reliable intermodal gateways in North America. Yet it seeks to achieve this against the background of a transport system that is already busier today than ever.

Tacoma's immediate hinterland has only a small population, so it needs an efficient rail service to help it ship containers long distances through mountains and other difficult terrain to big population centres such as Chicago.

It's a tough call facing the port's intermodal team, which is planning the efficient movement of cargo by rail from Tacoma's main port area, the Tideflats, for years to come.

The team aims to redevelop links first exploited

at the turn of the last century, when US rail pioneers constructed the railway link from Chicago to Tacoma. They knew it was the shortest to the Pacific. Others are rediscovering this and only a year ago, Tacoma's rail traffic was forecast to double by 2009. These predictions are now considered conservative.

The challenge is to develop – together with the port's transportation business partners – a port-wide strategy to keep a step ahead of the demand for rail services. Laying more rail track is an important component of the port's plans.

"We are in a continuous mode of planning and implementation for increased capacity and redundancy," explained Robert Collins, the port's director of intermodal services. "Between now and 2012 we will be constructing or expanding rail tracks at

## “Between now and 2012, we will be constructing or expanding rail tracks at every location touched by intermodal transportation on the Tideflats”

every location touched by intermodal transportation on the Tideflats.”

Collins said the port’s game plan for rail is, essentially, a three-pronged approach:

- Improve operating efficiencies;
- Build infrastructure improvements; and
- Conduct long-term system planning.

His team believes that improving the efficiency of intermodal cargo movement is the most cost-effective way to grow the existing rail infrastructure’s capacity.

For years, day-to-day rail planning at the port involved a series of conference calls between the port, Tacoma Rail and the two mainline railroads, Union Pacific and BNSF Railway.

“As growth continued, we became convinced that even multiple conference calls each day weren’t enough to ensure efficient rail flow,” said Collins. “A delay in a ship’s arrival or an unanticipated rail capacity issue can have a cascading effect, so we wanted to take planning and co-ordination to the next level.”

To that end, the port – together with its rail partners – worked to develop a joint command centre. The Tacoma Command Center (TCC) opened at the Port Business Center in May 2005, ahead of the original 2006 deadline.

TCC measures rail flow in the Tideflats to help traffic flow. A web-based application – Business Exchange – was designed to allow all partners to ‘see’ into the supply chain. “This system is currently in the first phase of deployment, used by the partnership and intermodal terminal operators,” Collins explained.

The port was certainly prepared to invest when it came to laying rail tracks. A \$10.5M project increased rail throughput at two key access points for port terminals, Bullfrog Junction and Chilcote Junction, as Jeannie Beckett, senior director of intermodal transportation, explained.

“These two rail projects increase the efficiency of access to the port rail system and will have a direct impact on cargo flow through the port, saving both time and money for our business partners and customers,” she said. “Multiple trains can now move to and from the terminals at the same time.”

Construction began in February in 2006, but both junctions remained in full operation throughout the work. The projects were two of six that will need to be completed before 2008, according to the port in its 20-year strategic rail development plan. Tacoma and its consultants are now engaged in five more studies. Four are for existing facilities and a fifth, scheduled to begin soon, will take a look at the big picture for the port’s growth needs both on and off the Tideflats, where most of the port’s container terminals are based.

Michael Zachary, Port of Tacoma’s director of port planning and logistics, explained: “These studies will

help the port identify what rail improvements can take place inside the Tideflats, adjacent to the Tideflats and outside the Tideflats – and what we need to do to meet our customers’ and potential customers’ current and future needs.”

Tacoma’s activity is timely. Memories are still strong of the 2004 crisis, which brought congestion to the West Coast, and observers are urging massive investment if the industry wants to avert future problems.

“We made it through 2006, but there’s no time to catch our breath – we can’t sit back,” warned economist Paul Bingham of Global Insight, which co-ordinates the National Retail Federation’s ‘Port Tracker’ congestion report. “Even though growth in volumes should slow in 2007, there will be plenty of opportunities for screw-ups that could cascade into bigger problems,” he told *P&H*.

Overall, Bingham believes the US intermodal and port system is handling imports better “not for any one simplistic reason, but because everybody is stepping up”. Management is taking action to mitigate problems right away, instead of just muddling through on the cheap.”

Yet the long-term risks of an American intermodal crash remain as daunting as ever – because the solutions of 2004 and 2005 cannot be repeated. Stakeholders made logical changes “that added a one-time gain that is permanent, but you can’t just do it again next year,” explained Bingham. “All the easy, low-hanging fruit has been picked and future gains will take more manpower and more equipment.”

Time is running out, warns APL president Ron Widdows, who puts the price-tag on necessary US fixes “in the hundreds of billions of dollars”. He asserted: “Demand is expected to outstrip capacity at most if not all major North American ports by 2010”, adding: “Rail delays, which at peak volume periods already reach upwards of a week, will likely get materially worse.”

Widdows, who serves on Transportation Research Board of the US Department of Transportation, wants measures put in place including:

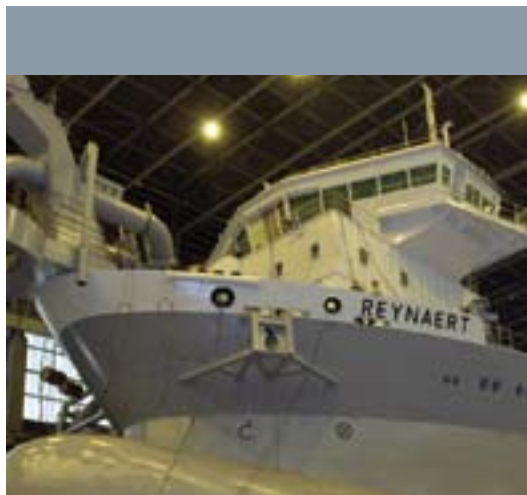
- Productivity improvements at US ports and terminals to match the rest of the world;
- “Immediate and massive” investment in rail infrastructure and intermodal connections in the highest volume ports. Incentives such as investment tax credits, should be offered;
- More incentives to spur reinvestment in the trucking sector, with an emphasis on attracting more drivers;
- A National Freight Policy enacted “that makes addressing this looming crisis a priority”.

Widdows concluded: “We may have earned a reprieve for the next couple of years by using our guile and ingenuity to take advantage of any remaining slack in the transport system – but that slack has largely been used up.” **PH**

More info: [www.portoftacoma.com](http://www.portoftacoma.com)



# VERSATILITY AND PRODUCTIVITY: A WINNING COMBINATION



DEME has been at the forefront in the dredging industry for decades owing to its versatile fleet capacity, innovative technological developments and expertise. To ensure its top position in this industry, DEME invested heavily in the further extension of its fleet and ordered 4 more vessels.

September 2006 was marked by the launch of the "Marieke", a 5,600 m<sup>3</sup> trailing suction hopper dredger capable to perform maintenance dredging in shallow waters, deepening of harbours and access channels, beach nourishment and land reclamation. In November 2006, the "Reynaert", a copy paste version of "Marieke", was launched. In addition, two trailing suction hoppers, the trailer "Brabo" with a capacity of 11.650 m<sup>3</sup> and the trailer "Breydel" 9.000 m<sup>3</sup>, will join the extensive and modern DEME fleet respectively during 2007 and 2008.

With the winning combination of this versatile fleet and a wealth of worldwide experience, DEME is ready to face the future!

## Our fleet of Trailing Suction Hopper Dredgers

Pearl River	24,146 m <sup>3</sup>
Nile River	17,000 m <sup>3</sup>
Lange Wapper	13,700 m <sup>3</sup>
Uilenspiegel	13,700 m <sup>3</sup>
Brabo ( <b>under construction</b> )	11,650 m <sup>3</sup>
Vlaanderen XVIII	11,300 m <sup>3</sup>
Pacifique	9,208 m <sup>3</sup>
Breydel ( <b>under construction</b> )	9,000 m <sup>3</sup>
Antigoon	8,400 m <sup>3</sup>
Marieke	5,600 m <sup>3</sup>
Reynaert ( <b>under construction</b> )	5,600 m <sup>3</sup>
Pallierter	5,400 m <sup>3</sup>
Vlaanderen XX	5,072 m <sup>3</sup>
Charlemagne	5,000 m <sup>3</sup>
Atlantico Due	4,200 m <sup>3</sup>
Mellina	3,650 m <sup>3</sup>
Jade River	3,200 m <sup>3</sup>
Orwell	2,575 m <sup>3</sup>
Vlaanderen I	2,065 m <sup>3</sup>
River Bee	1,800 m <sup>3</sup>
Vlaanderen XXI	1,751 m <sup>3</sup>



Haven 1025, Scheldedijk 30  
B-2070 Zwijndrecht - Belgium

Tel.: +32 3 250 52 11 Fax +32 3 250 56 50  
Web site: [www.deme.be](http://www.deme.be) Email: [dredging@dredging.com](mailto:dredging@dredging.com)

# Defeating surge waves

If your operating environment faces long ocean reaches, now is the time to revisit the tools you use for managing surge, says **Dr David Johnson**

**R**ecent scientific research is delivering a new, web-based forecast tool for port operators to manage the risks of surge within ports. Far infra-gravity waves (FIG), sometimes called long waves, generate wave energy with a longer period than the more visible sea and swell waves. They have been recognised for some time as a primary driver of the surge within ports presenting a hazard to moored vessels and for navigation.

Even armed with this understanding, it has been difficult for the industry to manage the costs of surge in operations, and to design structures such as breakwaters or submerged reefs that effectively mitigate this wave agitation.

However, it is now proven that within FIG waves there are distinct sets of energy, including a wave pattern with an even longer period than conventionally understood long waves. This understanding has enabled the

development of an innovative, low-cost tool to predict and respond to surge.

Wave agitation within ports represents a significant cost for ports facing long ocean reaches. Resultant vessel surge can disrupt loading and unloading schedules, require expensive mooring configurations or risk damage to mooring lines and fenders and even require decisions to send or hold vessels offshore.

Moreover, the compounding effects of different wave patterns – with limited quality of forecast information – require a very conservative approach to be taken to assessing under-keel clearance on vessels. This impacts on loading, arrival and departure planning for ports.

A number of port operations have begun using advanced forecasts. These include seven-day wind, wave and swell forecasts at hourly intervals modelled specifically for their location and a breakdown for each berth of the FIG wave heights at the berths



**Sophisticated computer modelling (right) can forecast local ocean conditions.**

that have the most serious impact on vessel motion.

With the help of a New Zealand government research and development programme, scientists and oceanographers at MetOcean Solutions studied the wave conditions within ports from the Middle East to the west coast of Australia, and around New Zealand.

Actual conditions within the ports were analysed to the offshore weather conditions, and enabled the calibration of models to forecast wave conditions with a high degree of correlation to measured conditions. A 100-day field study at Port Taranaki, New Zealand, for instance, demonstrated a 0.8 correlation for key events against the 72-hour forecast. Critical long wave events forecasts were seen to have a real effect at vessel berths and influence operational planning.

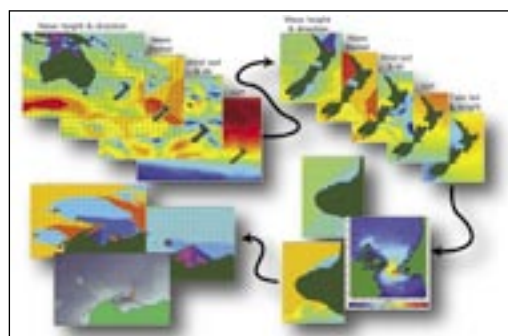
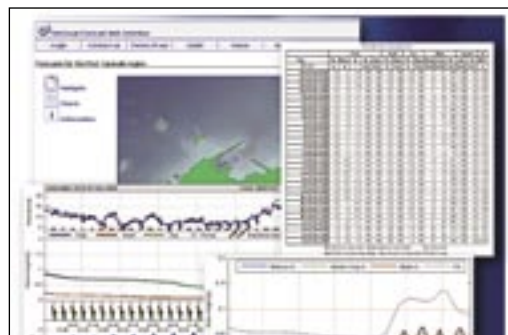
The quality of the forecast system is driven by two key factors – the latest science and sophisticated and progressive computer modelling. Scientific research on ports has demonstrated the significance of these different types of wave energy on the port conditions and enabled scientists to understand how they are generated from the regional and local environment and how they transform in the port basin. This knowledge has been captured in the models and calibrated for individual ports.

For instance, ports need to understand long waves' behaviour. Long waves can travel in a different direction to the prevailing swell – even though they are generated from it. This provides a fundamentally different view on how the local environment – including breakwaters – influence conditions within the harbor.

The other key element is the ability to progressively forecast the marine conditions at increasingly finer scales. This allows for the effects on waves and winds of topographic and bathymetric features of the local and regional environment to be resolved. The forecast system collates the latest meteorological data and deep ocean wave spectral forecasts and simulates how waves will be altered, generated and transformed from interaction with the local wind and ocean floor.

Using sophisticated computer modelling, the ocean conditions are forecast for a region, and then progressively re-forecast for smaller and smaller areas to define specified local conditions. Only with recent reductions in the cost of computer processing has a commercially viable solution been possible.

A new level of visibility on the drivers of harbor wave agitation can be available to all staff on the web by chart or data table as well as XML file for integration



with other applications. This helps port operators with decisions on:

- Underkeel clearance, vessel motion and/or mooring solutions
- Cargo handling and pier usage planning
- Short-term planning, based on wind and wave conditions, for port maintenance and dredging operations
- Port planning for handling exceptional loads
- Staff planning to cater for difficult conditions
- Health and safety assessments and briefings.

The same technology enables an exceptional level of confidence in hindcast data. When this is put together with supporting computer processing power, options open up for ports to refine proposed capital projects using this advanced understanding of wave generation and transformation.

In this way, a new breakwater project can be modelled to challenge traditional assumptions on its ability to mitigate the components of long wave activity. It is possible to see if a lower-cost, simpler structure may achieve the same result.

Alternatively, the technology may be used for project planning. Hindcasts covering several years of wave conditions, including magnitude, direction and duration, can be compared with forecast weather conditions over the project's duration. This should produce a realistic idea of weather downtime, to optimise planning and budgeting for major projects.

Scientific advances and the affordability of computer processing power have provided an unprecedented opportunity to understand and forecast the timing and magnitude of surge conditions. This will support port teams in optimising efficiency and safety. **PH**

*Dr David Johnson is director, oceanography, MetOcean Solutions*

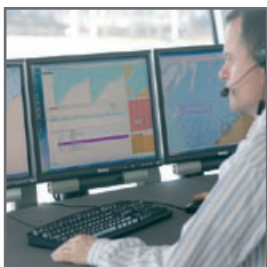
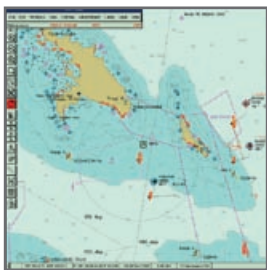
*More info: [www.metocean.co.nz](http://www.metocean.co.nz)*

**Managing the risks: ports can find help to design structures to survive big waves.**

## Hurricane cycle

"Since 2005, the MSL forecasts have provided an invaluable tool for planning marine operations in Port Taranaki, and it is very rarely that we now experience unforeseen events. We would recommend the system to any ports where weather conditions affect operations and it is an invaluable and flexible long-range forecasting tool. With the nature of Port Taranaki, on New Zealand's exposed west coast, seven-day forecasting of wind, waves and swell has seen a paradigm shift in operational planning associated with our dynamic underkeel clearance system (DUKC)"

*Captain Ray Barlow, operations manager, Port Taranaki.*



# The power to see at a single glance

Why spend more time trying to visualize what your sensors are telling you than managing your operations?

At Barco, we know what it means to bring critical sensor information to the operator. With years of experience in security and surveillance applications, Barco presents the maritime community with visualization solutions that significantly improve the speed and efficiency of your operations.

Barco's full range of visualization solutions from sensor to display bring accurate, real-time situational awareness information, complete interoperability, extensive image processing capabilities and a high degree of flexibility and configurability.

Discover more at [www.barcovesseltraffic.com](http://www.barcovesseltraffic.com)





Singapore is the world's busiest container port and continues to live up to the country's national symbol, combining aggressive growth with its traditional maritime links, as **Bridget Hogan** found out

**B**uoyed by robust demand for Asian goods, container demand at Singapore's Jurong port and PSA Singapore Terminals grew 9.3% in October, adding up to 20.5M teu handled in the first ten months of last year. The results confirm PSA's plans for the ambitious expansion of its new facilities at Pasir Panjang – which means 'long beach' in Malay.

Volume at Singapore's ports has been rising for the past 10 years, according to the country's Maritime & Port Authority, dipping only marginally between 2000 and 2001. It may be a small island nation without natural resources, but Singapore has long realised that trade is the way that it can secure the fortunes of the country and its people.

And with trade comes the need for a port. But it is not just any port. It is the world's largest container port, handling about one in five of all the transshipment boxes moved globally. PSA Singapore Terminals handled 22.3M teu in 2005.

Operating as a single integrated facility, its four terminals at Tanjong Pagar, Keppel, Brani and Pasir Panjang serve some 200 shipping lines and offer connections to 600 ports in 123 countries. This includes

daily sailings to every major port in the world.

Now PSA Singapore Terminals is speeding up the development of its newest facility, Pasir Panjang Terminal (PPT), just west of the existing facilities. Phase one of PPT's development was officially opened in 2000, while work on phase two is continuing apace and will add 15 new berths, boosting PSA Singapore Terminals' annual capacity by another 11M teu.

This will give PSA Singapore Terminals an annual capacity of 31M teu by 2011. But the Port of Singapore is not complacent and does not believe this will be enough in the early years of the 21st century. As a result, the Ministry of Transport and the Maritime and Port Authority are looking at the development of phases three and four at Pasir Panjang, which will more than double today's capacity to 51M teu by 2018.

The stakes are high. PSA Singapore Terminals wants to maintain its position as the world's largest container transshipment hub. PSA says that growth in global trade, particularly Asia markets, remains strong.

As well as building the new facilities, PSA has developed its PORTNET and computer integrated terminal operations system (CITOS) to speed ship

## Top Asia container ports (M teu)

Position	Port	1996	2005	2015 (forecast)
1	Singapore	12.9	22.3	33
2	Hong Kong	13.4	22.4	28
3	Shanghai	2	18	38
4	Shenzhen	0.6	16.9	46
5	Busan	4.8	11.8	22
6	Kaoshiung	n/a	9.4	13
7	Qingdao	n/a	6.3	26
8	Port Klang	n/a	5.5	10
9	Ningbo-Zhoushan	n/a	5.2	20
10	Tianjin	n/a	4.8	22

Source: port authorities



calls. It was designed in-house, primarily to handle the unique operational complexities encountered at the world's largest single terminal operator facility.

In some areas of the yard at PPT, with its overhead bridge cranes, machines do the work and humans are not seen, although they are on standby in case there is a machine breakdown. The system processes information submitted by customers and allocates equipment resources to vessels.

Staff then review these to deal with exceptional requirements. In the yard, CITOS dispatches jobs and allocates resources in real time, all the while tracking and relaying progress back to the control centre.

PORTNET is claimed to be the world's first nationwide business-to-business e-commerce system, linking port, shipping and logistics communities in Singapore – about 8,000 users with 90M transactions a year. Using PORTNET, customers can book berths, order marine services, transact bills, receive alerts and view operational statistics.

The system is constantly updated and improved to provide more value-added services and crucial information to customers. One such service is ALLIES, which facilitates data exchange among shipping alliance members to maximise slot utilisation.

PSA Singapore Terminals also operates multipurpose terminals at Pasir Panjang and Sembawang Wharves, which together handle over 16M tonnes of break-bulk and specialised cargoes annually. There is a ro-ro car carrier hub at Pasir Panjang Wharves, which handles more than 800,000 vehicles a year.

PSA has a joint-venture with Mediterranean Shipping Company (MSC) – the world's second-largest shipping company – to manage and operate three berths at PPT. Called the MSC-PSA Asia Terminal (MPAT), it has the capacity in excess of 2M teu. PSA also has a joint-venture with China's largest shipping line – COSCO – at PPT, operating a joint berth there.

On the MSC joint venture, Fock Siew Wah, chairman, PSA International, said: "In a constantly changing business environment, our business philosophy is to stay relevant by making flexible, strategic and mutually valuable commercial decisions in Singapore and globally. We believe that MPAT will enjoy the benefits of PSA's world-class operations standards and economies of scale, and gain from MSC's dynamism, as demonstrated

by its phenomenal growth over the past decade."

Singapore's recently retired minister for transport, Yeo Cheow Tong, commented: "The decision by MSC, a leading global carrier with a vast number of investment choices in ports around the world, to commit to Singapore via MPAT is a strong vote of confidence in Singapore's position as a relevant and competitive leading international maritime hub.

"Singapore is committed to growing and maintaining her hub port status and pro-business environment. We look forward to MSC and other global shipping players continuing to leverage upon Singapore's advanced financial, communications and IT networks, to strengthen their presence here and grow with us."

All this development needs equipment to drive it. Thus far, PSA has invested over S\$400M (\$260M) on super post-Panamax quay cranes (with 22-rows-across reach) and yard cranes and technology for the new berths. In one contract recently, PSA spent S\$10M (\$6.4M) on 46 Mercedes-Benz Actros prime movers and trailers to help speed the handling of transshipment containers in all four terminals.

Tan Puay Hin, COO for PSA Singapore Terminals, concluded: "We are always engaged in upgrading and renewing our port equipment and technology to sharpen our competitive edge." **PH**

More info: [www.singaporepsa.com](http://www.singaporepsa.com)

## PSA Singapore plans

Tanjong Pagar Terminal  
Keppel Terminal  
Brani Terminal  
Pasir Panjang Terminal

Facilities	current	projected
Container berths	44	46
Quay length (m)	12,800	13,400
Area (ha)	436	463
Max depth(m)	16	16
Quay cranes	143	152
Designed capacity*(M teu*)	24.7	26.1

Source: PSA International





Delivering Excellence Globally.



**MOFFATT & NICHOL**

Internationally recognized leader in trade forecasting, freight/cargo economics, bulk handling, coastal engineering, transportation, and port and maritime planning and design.

Creative People, Practical Solutions.

Locations throughout the United States, Canada, Panama, and the United Kingdom

[www.moffattnichol.com](http://www.moffattnichol.com)



# Morocco plans for 15,000teu ships

North Africa's largest container port project is near to completion, as

**Tony Slinn and Michael Mackay** explain



**T**angier Med, Morocco's purpose-built port on the country's northern coast, opens for trade later this year with the expectation that it will be handling 3.5M teu a year by 2018. And it is planning ahead, as its facilities will be able to handle containerships of up to 15,000teu.

Port Tangier Med (PTM), an abbreviation of Tangier Mediterranean, is under construction on a site east of the ancient port city of Tangier at a cost of \$1Bn and expects to open its first terminal on July 1. According to port director Elmostafa Almouzni, the facility will cover 40ha with a berth length of 800m and a depth of 16m. A second terminal of exactly the same dimensions is scheduled to become operational next year.

There's more: a bulk terminal is scheduled to come on stream at the end of this year and a hydrocarbon facility will be opened around the middle of next year. The port is also evaluating tenders for a dedicated ro-ro facility, construction of which will start soon, with operations scheduled to begin in mid-2009.

Backing these up is a 1,000ha logistics free trade zone (FTZ) and three other industrial zones centred on the PTM. These facilities are customs-free and the plan, according to Almouzni, is that the port will take advantage of both cheap Moroccan labour and its proximity to the European hinterland.

"We are outside Europe but only twenty minutes from it," said Almouzni. Paradoxically, Morocco itself might prove a little more elusive to reach, as the new port is not yet connected to the country's road and rail network, although Almouzni is confident that they will be by June in time for the opening.

PTM looks set to reconfigure the ports industry in Morocco. Official thinking is that the new port will become the *de facto* national port for manufacturing. Tangier city, where much of this sector is currently based, will become a centre for cruise ships and yachting.

The two container terminals are taking precedence in the development at PTM and the port has already



### Tangier Med: a port takes shape

attracted leading operators: APM Terminals gained the first, 30-year concession. The second went to a consortium formed by Eurogate, Contship and liner operators MSC, CMA CGM and Comanav.

Designed by French architect Jean Nouvel and under the overall direction of Tangier Med Port Authority (TMSA), the project's \$1Bn budget will see close to \$400M spent on the port itself, \$310M on infrastructure, about \$200M on the initial 130ha FTZ and \$90M on essential utilities and telecommunications. In addition, APM will invest about €150M (\$192M) over the next three years. Its terminal, the first to be opened, will have a start-up capacity of 1.5M teu.

The second terminal should open in 2008 and will boost capacity to 3M teu. When fully operational, the terminals combined are expected to have 16 quay cranes, a total yard area of 95ha, to be handling about 3.5M teu and to offer alongside depths up to 18m – enough for even the biggest container ships.

A bulk terminal is scheduled to come on stream at

the end of 2007 and an oil and bunker facility will join the facilities on offer about six months later in June or July 2008. TMSA is also currently evaluating tenders for a dedicated eight-berth ro-ro facility, complete with its own rail station and parking area. This is expected to start operations in the middle of 2009 with capacity for 5M passengers and 1.5M cars and trucks.

"Over the past few years, container traffic in Morocco has grown by over 18% – most of it handled by Casablanca," TMSA director Mohamed Hafnaoui told *P&H*. "Our objective, in line with the national plan, is to develop the north of Morocco and make PTM very competitive, especially in terms of logistics."

"We've already attracted some of the best terminal operators in the world and I believe that will ensure quality," Hafnaoui continued. "The battle to establish the port, however, must be won over land, which is why we decided to go for an integrated project. When complete, the port will be connected to the rail network by 45km of new railways and to the Tangier-Rabat motorway network by 53km of new motorway – other new roads and road extensions are also planned."

He points to PTM's strategic position – just 13km from Europe and well-placed to serve both west and north Africa with their combined markets of 600M people. He also stressed the importance of the new FTZs.

"We have free trade agreements with the EU and the USA as well as with Turkey and Arab countries," he added. "We've set up the company Medhub to operate the first new free zone, but it's under the management of Jafza, which runs the Jebel Ali FTZ in Dubai. There are special customs regulations in place and no taxes for the first five years, possibly ten."

That FTZ will be complemented by two further industrial FTZs – Melloussa 1 and Melloussa 2 – inland and adjacent to the new motorway, plus the current FTZ at Tangier, which will be increased to 600ha. TMSA expects that about 145,000 new jobs will be created.

Mohamed argues too that the Moroccan people's abilities – together with relatively low wages – will be attractive to investors: "We have qualified people who learn quickly and we have training programmes in place. In all, given the interest shown, we believe we're on the right road."

PTM's strategic position as the first major container port for ships entering the Mediterranean from the Atlantic could well justify the forecasts that it will reach its 3.5M teu capacity by 2018.

Shipping lines expect the container port at PTM to operate in tandem with the well-established facilities at Algeciras, where there has also been expansion. Maersk Line said there was enough traffic in the Gibraltar Strait to allow both ports to operate at capacity.

By 2018 the planned tunnel under the Gibraltar Strait to Spain may be built. Test drillings have already been carried out, and major road and railway systems are being built in the Spanish province nearest Morocco – Andalusia – to connect to an already well-established motorway and rail network. **PH**

More info: [www.tmsa.ma](http://www.tmsa.ma)



## West Balkan port pact

Southeast European countries in the west Balkan region have signed an agreement with the European Union to promote ports and other infrastructure projects in the region, as a precursor to any talks to join the grouping.

Transport ministers from Albania, Bosnia-Herzegovina, Croatia and the former Yugoslav countries agreed to co-operate to develop their transport networks to help the region's integration into the EU.

EU transport commissioner Jacques Barrot stressed the importance of closer co-operation, declaring that "the development of an adequate and reliable transport network is a precondition for any region's economic progress and social integration.

"Furthermore, by supporting the deployment of the principal transport network in southeast Europe, we will also benefit from the extension of the European market and from the more harmonious development of our entire continent."

Under the resolution, the countries are expected to develop sustainable transport infrastructures and tackle various operational and regulatory matters to help bring them into line with EU practices.

## Monitoring HNS in ports

European Union countries have met to discuss ways of using vessel traffic monitoring in the control of hazardous goods transport at sea and in ports.

Meeting at the European Safety Agency in Lisbon, discussions revolved around ratification of the HNS Convention and the possibility of amending EU Directive 2002/59 in order to use the SafeSeaNet system as a verification mechanism for HNS reporting.



**The 45ft box: still allowed on the road in the EU**

## Big boxes cleared for European roads

A European Union decision will allow 45ft containers – popular on some shortsea and ro-ro routes – to continue to use the region's roads, but only on a national basis.

There were concerns that 45ft containers would not be allowed after the ending last month of a 10-year transition period for rules covering road transport weights and dimensions. But the EU says special arrangements will need to be established if the containers are to be moved by road between different countries in the region, adding that the use of 45ft containers will encourage intermodal transport.

"The rules on the dimensions of vehicles and loading units should match the needs of advanced

logistics and sustainable mobility in Europe," said Jacques Barrot, EU transport commissioner.

The move will be "an important impetus for intermodality", he added, as 45ft containers are carried by rail, shortsea shipping or inland waterway transport over longer distances, with road transport making up only the shorter first and final legs.

The larger container, which is able to load 33 Europallets, has still not gained general popularity. Some 400,000 45ft containers are thought to be in circulation, out of a total global fleet of 20M teu.

Iceland-based shortsea operator Samskip welcomed the news. It said the importance of the 45ft container, which is mostly used for

shortsea movements "cannot be understated."

Samskip said use of the 45ft container enables the European shortsea and intermodal industries to compete on equal terms with road transport operators using 13.6m trailers.

"They provide shippers seeking a more environmentally friendly or cost-effective form of transport with a serious alternative to road haulage," the company said. "It is therefore essential that shippers and their logistics partners understand that the debate concerning the legality of 45ft containers is solely confined to the deepsea trades. For shortsea and intermodal operators, it is business as usual."

## New weapon to fight piracy

An anti-piracy information sharing centre has opened in Singapore, just three months after the agreement to set it up was signed. ReCAAP – the Regional Co-operation Agreement on Combating Piracy and Armed Robbery against Ships in Asia – opened its Information Sharing Centre (ISC). It is the first time that co-operation among regional governments against piracy and armed robbery at sea has

been institutionalised in a permanent body with full-time staff.

ReCAAP ISC will ensure swift exchange of information between the national monitoring or enforcement agencies of the participating countries on incidents of piracy. It is aimed at enhancing the region's ability to respond to piracy threats or attacks, which are often trans-national in nature.

# Getting standards for TWIC

A working group of industry representatives has met in Washington at the request of the US Department of Homeland Security (DHS). It aims to develop technical standards for a standardised biometric identification card and readers to control worker access at the country's ports.

The working group is the latest effort to roll out a Transportation Worker Identification Credential (TWIC) more than four years after Congress called for a universal, tamper-proof identification card embedded with biometric identification, such as fingerprints, that can be used interchangeably at all ports.

The committee is divided into two subgroups, one made up of maritime professionals who will develop operating requirements for the TWIC card, and the other with representatives from the technology and security sectors

## A manual check: TWIC is aimed at electronic identification

who will put together the technical requirements to meet operational needs.

The working group is co-chaired by Lisa Himber, vice-president of the Maritime Exchange for the Delaware River and Bay, and Basil Maher, president and CEO of Maher Terminals in Port Elizabeth, New Jersey.

The maritime industry is lobbying the DHS to adopt a contactless card, that can be electronically read at facility gates rather than swiped through a reader. Ports are concerned that contact cards could slow down access to facilities.

Congress has set tight deadlines for the initiative, calling on the



DHS to begin checking biometric identification at the 10 highest-risk ports by 1 July and the next 40 priority ports by the beginning of next year.

The working group has until 28 February to submit its recommendations to DHS, with a pilot test scheduled to start in early April, committee members said. The ports of New York-New Jersey and Los Angeles-Long Beach will participate in the first test programme.

## Costs 'must be shared'

Asian shippers meeting in Jakarta have called for proportional sharing of security costs by "all parties" in the supply chain, including governments, carriers, terminal operators and other logistics service providers.

"Each party should shoulder its own cost and not merely pass them on," a statement from the meeting said, adding that all parties in the supply chain stand to benefit from improved security.

On the vexatious issue of terminal handling charges, Asian shippers have claimed "positive" results, noting that charges have been "successfully reduced" in Indonesia, while China has echoed shippers' contention that charges are integral to freight.

## EC calls for transparency

A new report from the European Commission has criticised the "lack of transparency" in transport security financing, which it fears could be distorting competition in the industry.

It says security costs can be "significant" and are currently largely borne by the users. "Increased transparency relating to security taxes and charges would give users of transport services better information and provide a clearer insight into possible effects on competition," the report adds. It fears there are distortions in competition in the current system.

More info: [http://eur-lex.europa.eu/LexUriServ/site/en/com/2006/com2006\\_0431en01.pdf](http://eur-lex.europa.eu/LexUriServ/site/en/com/2006/com2006_0431en01.pdf)

## Environment standard guide

The International Organization for Standardization (ISO) and the United Nations Global Compact Office (UNGCO) have signed an agreement to co-operate on the future development of the social

responsibility standard ISO 26000.

The agreement is aimed at ensuring consistency between ISO 26000 and the UN's 10 global compact principles, which address human rights, labour, the

environment and anti-corruption.

One terminal operator – DP World – has so far gained the ISO 26000 standard, but other facilities are known to be considering it.

More info: [www.iso.org](http://www.iso.org)

## Giuliano Gallanti re-elected at ESPO

Members of the European Sea Ports Organisation (ESPO) have re-elected Giuliano Gallanti from Italy as chairman for another two years.

"This is a great honour and a task to which I look forward with great anticipation," Gallanti said. "But it is also an important responsibility, given the reflection process that we have started with the European Commission and all stakeholders on the future policy for our seaports in Europe".

He expressed his satisfaction over the consultation process initiated by the EU transport commissioner Jacques Barrot: "The open and frank debate we have had so far shows there is considerable goodwill to achieve results, even on tricky issues like port services and the role of port authorities, port financing, sustainable port development and social matters."

Gallanti said that the development of a European

port policy was the foremost priority of his new mandate and expressed his commitment to the Commission to bring this exercise to a good end. At the same time he warned: "A business sector generally performs much better when it is encouraged and stimulated." He said the new EU initiative for ports should not be a "one size fits all policy".





## MSC's Igor Ponomarev dies

Igor Ponomarev, chairman of the IMO's Maritime Safety Committee, died suddenly in November at the age of 41.

His death caused shock throughout the shipping community. He had been closely involved with the Russian Federation's participation at IMO since 1993, becoming Russia's permanent representative 10 years later. Some had already tipped him as a future secretary-general of the organisation.

IMO secretary-general Efthimios Mitropoulos spoke of his personal loss and paid tribute to recognition that Ponomarev had won for IMO.

He described Ponomarev as "a great friend and a highly talented young man." He added: "He had all the necessary background, depth of knowledge, courage and wisdom to take on the challenges and the enormous responsibility of chairing the most senior technical committee of IMO."

Ponomarev was chairman of a range of committees and subcommittees and was elected chairman of the MSC in 2005, taking over last year. He trained as a naval architect and rose to become vice director-general of the Russian Register from 1999 to 2003.



As the vessels get bigger the port calls are fewer

## Containerisation is concentrating

The United Nations Conference on Trade and Development (UNCTAD) says the main liner carriers continued to tighten their grip on liner shipping throughout last year.

The agency points to work from Clarkson's *Container Intelligence Monthly* (CIM) and says that in January 2003 the 10 largest

container ship operators accounted for 44.4% of global container carrying capacity. By the beginning of September 2006 this had risen to 54.8%.

UNCTAD says that the growth is partly attributable to the two major acquisitions of 2005 – Maersk's takeover of P&O Nedlloyd and Hapag-Lloyd's takeover of CP

Ships. But organic growth in world trade has also led to a continuous gradual increase in the market share of the largest carriers.

However, UNCTAD says that its research has revealed that the number of carriers offering services at individual ports continued to increase in 2006 despite the global process of concentration.

"Mergers and acquisition have meant that there are fewer carriers today than 10 years ago, but the same global carriers had continued to expand into new markets, and as a consequence the number of carriers providing services to specific ports actually increased for the majority of countries," said Jan Hoffmann, of UNCTAD's trade logistics branch. "Since mid-2005, however, the average number of carriers per country has started to decline."

UNCTAD is concerned that the average number of companies providing services to ports has decreased from 21.5 (July 2005) to 20.3 (July 2006). "Although the reduction of an average of around one company per country may not, at first sight, appear to be significant, for smaller markets it can make a considerable difference," said Hoffmann. Among the 161 countries studied by UNCTAD, 79 were served by only 10 or fewer companies in July 2004. By July 2005, 80 countries were served by 10 or fewer, but this had risen to 85 in July last year.

More info: [jan.hoffmann@unctad.org](mailto:jan.hoffmann@unctad.org)

## AMSA container alert

The Australian Maritime Safety Agency has issued a marine notice about the need to monitor and control the stuffing, transport, loading, securing and discharge of containers.

It has identified shortcomings in the securing of cargo transport units onboard ships after conducting random cargo securing inspections on ships to verify compliance with the cargo securing manuals required by SOLAS.

AMSA says it is concerned about the number of obvious breaches of the securing requirements and will continue to intervene where deficiencies are found. This also extends to the condition and maintenance of securing equipment.

There have also been several incidents where

containers have been loaded on to, and discharged from, vessels trading into Australian ports where the containers were subsequently discovered to be loaded in excess of the maximum gross mass marking of the CSC safety plate.

In one incident documented by AMSA, 10 out of 14 containers in one consignment were found to be seriously overloaded.

The agency has also received reports of cargo inside containers shifting during transport.

In one recent case, cargo stuffed into a soft-sided container broke free during passage on a vessel and spilled through the side of the container and on to the deck.

More info: [www.amsa.gov.au](http://www.amsa.gov.au)

## MSC spotlights security

Maritime security issues loomed large in the deliberations of IMO's Maritime Safety Committee (MSC), which closed its 82nd session last month after eight days of meetings. Speaking in Istanbul at the end of the meeting, the IMO's secretary general, Efthimios Mitropoulos, said that the work of

the committee was aimed at assisting in the wide and effective implementation of the ISPS Code, particularly for container and supply chain security.

He said the MSC's wider co-operation with other agencies will ensure that the "right balance" is struck between enhanced security

and the facilitation of maritime traffic. Neil Ferrer, vice-chairman of the committee, commented: "The decisions in relation to the implementation of the LRIT system are important." The London-based International Mobile Satellite Organization was appointed co-ordinator of the scheme.

## New IMO member

The IMO Council, meeting for its 97th session in London, welcomed the IMO's 167th member state, Montenegro. The Balkan country is one of the world's newest states and also aspires to join the EU. The next state likely to join IMO is the Cook Islands. It needs the approval of two-thirds (109) of the current member states, since it is not a member of the UN.

## FAL amendments

A number of amendments to the Convention on Facilitation of International Maritime Traffic (FAL Convention) entered force last November. These include new recommended practices to encourage the use of electronic systems for exchanging data and, generally, to simplify procedures to enhance the facilitation of trade.

The new recommended practices include transmission of data, required in connection with the arrival, stay and departure of ships, persons and cargo, to a single point (the single window concept) and use of pre-arrival data for subsequent release and clearance of passengers and cargo.

Another amendment requires authorities to facilitate the arrival and departure of ships carrying persons rescued at sea.

*More info: [www.imo.org](http://www.imo.org)*

## IMO – the next four years

The IMO's secretary-general, Efthimios Mitropoulos, has had a second four-year term of office confirmed by the UN agency's Council and will now serve until December 2010.

The Council praised his "exceptional leadership, initiative and commitment."

Mitropoulos said that the safety of life at sea should continue to be IMO's principal objective. He added, "We should continue to pay due regard to the contribution to enhanced safety of flag, port and coastal states, classification societies and other stakeholders, all having an important role to play in collectively implementing, maintaining and raising the safety standards of shipping."

Anticipating a period in which significant long-term efforts to improve maritime safety and reduce the risk of pollution will take effect, Mitropoulos spoke of the many challenges currently facing the organisation.



**Mitropoulos: maritime security issues will be a priority in his second term**

Mitropoulos said he intended to strengthen the secretariat to work on maritime security issues. He stressed the importance of "guarding against complacency" in

assessing the risks of terrorism and raising shipping's defences to protect human lives, property and the environment.

*More info: [www.imo.org](http://www.imo.org)*

## Emissions solutions

The International Bunker Industry Association (IBIA) says that moves to further tighten air emission controls on shipping through changes to IMO's Marpol Annex VI cannot be based on one solution.

Ian Adams, secretary-general of IBIA, told the association's annual meeting: "The international community wants to see a further reduction in sulphur and other air emissions from ships. We support that, but we cannot support simplistic one-stop solutions to the problem."

"The bunker industry, both users and providers, believes that a combination of low-sulphur heavy fuel oil, distillate fuels, alternative fuels and emission abatement equipment such as scrubbers will together give the shipping industry the means to cut emissions without compromising the safety and efficiency of global shipping."

Adams was reacting to calls from Intertanko for vessels to move to burning distillate fuels only. "It sounds so simple," says Adams. "But in practice it would be very difficult to implement and could compromise both safety and efficiency. We believe that with sensible regulation, and by applying the multiple solutions available, the industry can reach the same low level of emissions with less disruption. We note that the ICS backs the same multi-stream approach and we shall certainly be putting this view strongly at IMO, where we have consultative status."

*More info: [www.ibia.net](http://www.ibia.net)*







**Jan De Nul**  
G R O U P

Jan De Nul Group, operating worldwide, is specialized in dredging and land reclamation, rock placing, trenching, rock dumping for oil and gas related offshore pipeline projects, quay walls, marine related projects, civil engineering and large-scale environmental remediation projects, with a good reputation in turnkey projects. With a yearly turnover of €800 million, the company ranks amongst the international top of dredging contractors and the top of marine engineering contractors.

**OFFICE JAN DE NUL N.V.**

Tragel 60, B-9308 HOFSTADE-AALST

Tel.: Intl. Division: 32 53 73 17 11

Fax: 32 53 78 17 60 - 32 53 77 28 55

E-mail: [info@jandenul.com](mailto:info@jandenul.com)

Website: [www.jandenul.com](http://www.jandenul.com)



# Convention could sink or sail



Photo: International Salvage Union

**Threatening the clear way into ports: the product/chemical tanker *Alicudi M* grounded following typhoon Maemi**

Heated discussions in Paris on the Draft Wreck Removal Convention (DWRC) could have a positive outcome for ports, by extending the scope of any treaty to include the entire area covered by exclusive economic zones (EEZs) and territorial seas.

But it all depends on whether agreement can be reached in time for the diplomatic conference, to be held in Nairobi, Kenya, in May. The aim of the 92nd IMO Legal Committee meeting – held in Paris as the London HQ undergoes a refit – was to finalise the DWRC and send it on to that conference.

However, as Arjen Doosje from IAPH's Legal Committee reports, although only two days of the IMO session were allocated to the discussion, the DWRC took almost all week to discuss.

"Old subjects for debate were raised again, especially on the scope of the convention," he said. "Several delegations wanted the scope to be expanded from EEZ to the territorial sea or even the whole territory of states."

Negotiations will now continue until May's diplomatic conference with a view to producing a proposal reflecting the widest

possible consensus. "From IAPH's viewpoint, extending the scope to the territorial sea is a good option, although it is hard to overlook the practical consequences," said Doosje.

"At least it would mean that seaports could bring their claims directly to the insurer in case of any damage to property at seaports."

And he added: "We now have to wait to see whether IMO's Legal Committee will be able to produce an alternative text for the DWRC that will satisfy all states. Otherwise the DWRC might not be able to find a safe haven."

The DWRC contains a system of compulsory insurance or other financial guarantee for sea-going vessels to cover liability as a result of the existence of wrecks (including sunk and stranded ships, but also parts of ships that are sunk or stranded and ships that are about to sink or strand; ships in distress). Those who suffer damage because of the (removal of) wrecks can bring their claims directly against the insurer (so called 'direct action'). Furthermore, the convention will give coastal states certain rights to ultimately remove the wreck.

As soon as a new text for the DWRC is available, this will be posted on IAPH's website.

## IAPH first for Vietnam forum



**Ho Chi Minh City will host the next regional meeting**

Vietnam is preparing to host its first prestigious regional world ports event – the 8th IAPH Asian Oceania meeting and port forum – which will be held in Ho Chi Minh City later this month.

The country's economy is growing fast and so is the port industry, concentrated on the Ho Chi Minh City area. Saigon Port is taking a major part in the country's ambitious port development plans and Le Cong Minh, its DG commented: "We wish to share with other IAPH members the opportunities and challenges we face."

"We are planning a meeting and forum that will fulfil all of IAPH's business objectives while also offering members the best social amenities of Ho Chi Minh City. It is a unique blend of historic, economic and social traits with the traditional and contemporary character of a developing city."

There will be port tours and visits to historical sites and city developments.

# Security costs under investigation

IAPH has contributed to a major survey by UNCTAD (the United Nations Conference on Trade and Development) on the ISPS Code. The UN agency praised IAPH for its work.

UNCTAD has been investigating the start-up costs of the ISPS Code and has concluded that smaller ports are shouldering a disproportionate share of these investments. It also found costs were higher for smaller ports.

It is working on a final report, which Hassiba Benamara, from UNCTAD's trade logistics branch, says will be available soon. The report will be the first global assessment of the actual costs incurred or expected.

UNCTAD sent out a questionnaire designed to obtain first-hand information from those it considered were directly affected by the

new IMO security regime – governments and members of the shipping and port industries.

It says the main objective of the study was to establish how much it costs to comply with the SOLAS and the ISPS Code requirements.

"This study should be considered as a first step towards any assessment of potential economic implications of the new international maritime security requirements," it says.

While governments responded well, only limited responses were received from the shipping sector, UNCTAD reports.

"As to ports, a good response ratio was also achieved, with over one-third of the respondents located in developing regions," said Benamara. "Reported figures for initial and annual costs indicate the presence of wide

cost differentials. Average unit costs (initial and annual) are found to be higher for smaller ports." *More info: [hassiba.benamara@unctad.org](mailto:hassiba.benamara@unctad.org)*



**UNCTAD says smaller ports shoulder too big a share of ISPS Code start-up costs**



# Promise of port vision for Africa

Port and shipping people in Africa headed to the Nigerian capital of Abuja in November for the 6th Pan-African Ports Co-operation Conference (PAPC) and IAPH Africa Europe Regional meeting, where the 150 delegates from 20 countries were urged to craft a "cohesive" vision for African ports.

Nigeria's transport minister, Alhaji Mohammed Habibu Aliyo, said the conference theme – *Ports of the future, world vision for Africa* – was an "exciting and challenging" one.

He called for a three-point plan for the continent, which would see:

- The development of hub ports;
- Upgrading to accommodate vessels of up to 4,000teu;
- More private sector investment.

He urged delegates to share experiences on the "processes, strategies and challenges of the reforms" that had started in the industry.

African ports needed to make huge investments to install gantry cranes, as it was no longer good enough to rely on ships' gear, Aliyo said. Most of the region's ports were built in the 1960s, some near swamps, which therefore need constant dredging. Added to this, most had received little or no investment over the past 20 years.

The three-year Nigerian port reforms programme is nearly complete, Adebayo Sarumi, MD of the Nigerian Ports Authority, told the conference. The concession process

was "implemented with vigour and commitment," he added.

Nigeria is now benefiting from the reforms with enhanced performance at ports and better provision of facilities.

"African countries are lagging behind, but we cannot afford to remain there. It is for this reason that we believe that this conference will bring us together to identify areas of co-operation, improvement and common strategy in order to run efficient ports and deal with global strategies," he said.

Taking up this theme, Abdallah Mwaruwa, chairman of Pan-African Port Co-operation (PAPC), commented: "We as Africans must work extra hard to create a conducive environment for business and economic growth so as to change the standards of living of our people."

Mwaruwa said PAPC had made "significant strides" towards achieving this vision since its inception in 1998. "I am optimistic that the original goal, which is to run our regional ports as purely efficient, commercial and profit-making entities, will be fully realised by all members sooner rather than later."

Against this background of increased privatisation, IAPH 2nd vice-president Gichiri Ndua set out the changing role of a port authority, which has a role as "overseer."

This function has "intensified" as stevedoring is being undertaken by private companies and redundancies follow. He called for a long-term

social cost-benefit analysis of port reforms of the "negative social contribution" they made.

Describing port authorities as "linkspans" between the various agencies involved in the provision of port services, he urged them to work to create common strategies with customs and security agencies and to help eliminate bottlenecks caused at ports by transport failures elsewhere.

IAPH secretary general Dr Inoue Satoshi urged port authorities to adopt the role of orchestra conductors, to bring together the different elements with an interest in the smooth running of ports.

"All port authorities need to transform themselves into modernised and skilful port managers," he said. "We can do this best by working together internationally, exchanging views, sharing best practices and experiences."

One of the surprise guest speakers at the conference was an old friend of IAPH – Alhaji BM Tukur. A past vice-president of the association between 1980 and 1982, Tukur is a former GM of the Nigerian Ports Authority and played an important role in IAPH's African region for a long time.

After his speech at the opening ceremony, he was presented with a IAPH 50th Anniversary Award by Dr Inoue in recognition of his long and dedicated service to the Association and involvement in its activities.





Delegates  
at the Abuja  
meeting  
had plenty of  
opportunity  
to listen to  
presentations and  
to mix socially



## Back to the classroom

After an 18-month hiatus, IAPH is relaunching its programme to help staff in developing ports learn and gain first-hand experience of the latest industry practices.

The IAPH training scholarship, formerly known as the IAPH bursary scheme, has been announced from the secretariat headquarters in Tokyo and will start this year.

The scholarship has been carefully redesigned by the Human Resource Development Committee, chaired by Eddy Bruyninckx, CEO of the Port of Antwerp, and endorsed by the Executive Committee at its meeting in Shizuoka last October. The Committee has endeavoured to make the procedures for application easier and faster.

The revamped IAPH training scholarship scheme includes new criteria for awarding scholarships and more streamlined application procedures, although all changes have been made with the aim of maintaining the original spirit of the scheme.

The new scheme is still aimed at giving financial help to staff of ports from developing countries to attend a first-class maritime institute to learn about and experience the latest practices for port management and operations.

One innovation is the appointment of IAPH-approved institutes – there are currently six in this category worldwide.

Before awarding this status, the Human Resource Development Committee carried out an investigation of training institutes, most of them drawn from the ranks of IAPH associate members, before selecting the six.

The committee chose those that offer competent pre-fixed programmes either in-house or by distance learning.

In addition to the scholarship scheme, some of those on the list of IAPH-approved institutes offer a special discount in course fees for IAPH members, although this is not limited to those from developing countries.

The scholarship scheme, which was started 1976, has so far helped more than 120 people from IAPH member ports in developing countries to attend advanced port training programmes overseas at IAPH-affiliated training institutes.

Applications are welcome from staff of IAPH member ports in developing countries whose membership dues unit is less than five. Those employed by central government agencies are excluded from the scheme.

Full details of the scholarship and application details from the IAPH website. *More info [www.iaphworldports.org](http://www.iaphworldports.org)*



Views on trade were discussed when a Bintulu delegation (above) called in on the IAPH secretariat during one of its regular visits to Japanese customers. The four were welcomed by Tatsuki Hioka, deputy secretary general, and Hiroshi Sasajima, adviser to the IAPH Japan Foundation.

They exchanged views on recent trade affairs in the region and discussed the *P&H* November 2006 issue, in which the developments at Bintulu, one of the world's largest LNG ports, were featured in depth.

The Bintulu deputation was made up of Soka Kikuchi, Bintulu

International Container Terminal marketing consultant; Abdul Nasser Abdul Wahab, senior manager Container Terminal Division; Ahmat Narawi, senior manager Corporate Development Division; and Bo Jow Yung, manager Business Development Corporate Development Division.

## Glittering prizes in essay competition

Calling all of you with ideas about the state of the world ports industry! If you want a chance to win a share of over \$3,000 in prize money and the opportunity to go to the IAPH World Ports Conference in Houston – expected to attract more than 1,000 people from the industry – then read on.

All you have to do is enter one of the IAPH essay competitions. We want to hear from the finest brains out there – now is your chance to let us have your thoughts and theories on the future shape of the industry.

For your opportunity to join the leaders of the industry you have to submit your entry for either of the IAPH essay contests 2006/2007 to the IAPH Secretariat in Tokyo by Friday March 2, 2007. Read on to find out what you must do...

### AKIYAMA AWARD CONTEST

The first competition is the Akiyama Award Contest, which is promoted by the Human Resource Development Committee. One of the Committee's aims is to foster the motivation of promising young staff at ports in developing countries.

For this renowned competition, the Committee invites all young staff of these ports to submit an entry for the contest, set up in commemoration of Dr Toru Akiyama. He was one of the founders of IAPH, and a former secretary general.

Qualifications for entry: staff who are employed by regular members in developing countries. These are defined as low income countries and lower middle income countries, as outlined by the World Bank at end of 2006. For specific details please see the IAPH website or contact the IAPH Secretariat.

#### Theme

Send your analysis and suggestions on how to improve your port on any of the following aspects: a) safety, b) security, c) usage of the site, or d) marketing.

You will be evaluated on the facts you give, backed up by actual figures, the logic shown and the feasibility of implementation.

You are required to write about 800–1,000 words in an MS-Word File, in either English or French. In the case of French you will need to supply an abstract of the paper in English.

First prize for the Akiyama Award is \$2,000, plus an invitation to

the Houston World Ports Conference, which runs from April 27 to May 4. Your air fare, hotel and registration fees will be covered.

For other essays of distinction, a prize of \$500 will be awarded.

### HOUSTON OPEN ESSAY CONTEST

The second of our competitions is a special one to celebrate the 25th World Ports Conference in Houston.

We invite all staff – young and senior – of any IAPH membership ports and companies – regular and associate – in all countries – developing and developed – to take part in an open essay contest. The subject matter covers two contemporary themes faced by ports of the world. We welcome sharp insights and inspired opinions.

#### Themes (select one of the two)

What new roles are expected of a port authority as a landlord port, in the context of global competition? Or

What could make port industries more attractive to local labour?

In evaluating the essays we will look for logical and well-founded arguments, based on actual business trends and circumstances.

You are required to write about 800–1,000 words in an MS-Word File, in English only. You must submit your entry to the IAPH Secretariat in Tokyo by Friday March 2, 2007.

If you have difficulty in sending your essay online, we will accept a hard copies delivered by courier.

*More info: [www.iaphworldports.org](http://www.iaphworldports.org)*

## Dunkirk reports 2008 meeting to be on track



**Planning for 2008: left to right: Dunkirk's Pierre Joly and Jean-Claude Terrier, MD, together with IAPH's Tatsuki Hioka**

A high-ranking delegation from the Port of Dunkirk Authority visited the IAPH secretariat in Tokyo during a promotional tour of Southeast Asia.

They took the opportunity to describe the port's expansion project and discussed the 2008 mid-term board meeting, which is planned to be held in the port city in northern France.

In fact, the meeting had originally been planned for 2006, but a delay in opening the newly constructed conference hotel resulted in Dunkirk's involvement having to be postponed.

All is back on track now for the rescheduled meeting, as the delegation explained, and planning is under way.

## Port developments

June-Suk Choo, president of Busan Port Authority (BPA) in South Korea, took time out from a busy schedule to visit the IAPH offices after delivering a lecture on BPA's strategy for redevelopment to a logistic hub port. He explained the progress of the project to IAPH secretary general Dr Satoshi Inoue.



**Redevelopments: Busan's strategy was outlined by June-Suk Choo (right) to Dr Satoshi Inoue**

## Dates for your diary

Major maritime congresses throughout the world

### January

- 29-30:** The International Transportation Management Conference & Exhibition – New Orleans, US  
*More info: [www.itm-events.com](http://www.itm-events.com)*
- 29-31:** SecurePort – 3rd Western Hemispheric Port Security Conference & Trade Exposition – Houston, US  
*More info: [www.secureportusa.com](http://www.secureportusa.com)*
- 31-2:** IAPH Asia/Oceania Regional meeting – Saigon, Vietnam  
*More info: [www.iaphworldports.org](http://www.iaphworldports.org)*

### February

- 7-9:** Clean Ships: Advanced Technology for Clean Air Conference – San Diego, US  
*More info: [www.cleanshipsconference.com](http://www.cleanshipsconference.com)*
- 8-9:** 4th Philippine Ports and Shipping 2007 – Manila, Philippines  
*More info: [www.transportevents.com](http://www.transportevents.com)*
- 13-14:** GreenPort 2007 – Lisbon, Portugal  
*More info: [www.green-port.net](http://www.green-port.net)*
- 26-28:** Faster Freight Cleaner Air (FFCA) 2007 – Long Beach, US  
*More info: [www.ffca2007.com](http://www.ffca2007.com)*
- 27-2:** IAPH Africa/Europe Regional Meeting – Sines, Portugal  
*More info: [www.iaphworldports.org](http://www.iaphworldports.org)*

### March

- 1:** India Supply Chain Council Inaugural Meet – Delhi, India  
*More info: [www.supplychains.in](http://www.supplychains.in)*
- 12-15:** 2007 Seatrade Cruise Shipping Convention – Miami, US  
*More info: [www.cruiseshipping.net](http://www.cruiseshipping.net)*
- 13-15:** TOC2007 Asia – Hong Kong, China  
*More info: [www.toc-events.com](http://www.toc-events.com)*
- 18-20:** Port 2007 – Alex – Alexandria, Egypt  
*More info: [www.pti-egypt.org](http://www.pti-egypt.org)*
- 25-28:** Ports 2007 – San Diego, US  
*More info: [www.asce.org/conferences](http://www.asce.org/conferences)*
- 29-30:** 5th Intermodal Africa – Durban, South Africa  
*More info: [www.transportevents.com](http://www.transportevents.com)*

### April

- 2-4:** Sea Asia – Singapore  
*More info: [www.sea-asia.com](http://www.sea-asia.com)*
- 24-26:** Cruise+Ferry – London, UK  
*More info: [www.cruiseferryex.com](http://www.cruiseferryex.com)*
- 27-4:** IAPH World Ports Conference – Houston, US  
*More info: [www.iaphworldports.org](http://www.iaphworldports.org)*





## A guiding light for an effective association

Jean Mongeau – vice-president, legal affairs, Port of Montreal, and chairman of the Constitution & By-Laws Committee – reports on how IAPH supports members in changing times.

I am pleased to have this opportunity to tell you about our Association's internal Constitution & By-Laws Committee. While members may be less familiar with it than with the others, this committee is no less active and in fact, its role is vital for the Association's proper functioning and governance.

As part of its guiding role as the keeper of the constitution and regulations, the Committee ensures that the principle of democracy is applied throughout our Association and that all members' rights are respected, at all times.

Back in 1997 at the Association's 20th Biennial Conference in London, the Committee was mandated to start revision of our constitution and regulations. Two years later in Durban, the members approved the revision project, giving the Association new tools to address the challenges of a new century and to stay right on course representing and defending members. The considerable revision work accomplished by the Committee was achieved by ensuring the representation of all member categories and by respecting their rights.

But our mandate did not end there. The Constitution & By-Laws Committee also works closely with the other internal and technical committees to ensure the legality of steps taken and to prepare appropriate recommendations on all issues relating to the Association's constitutionality.

Given that every Committee is faced with increasingly demanding challenges, it is comforting to think that the Constitution & By-Laws Committee is always there to support their various approaches.

Having chaired this Committee since May 2001, I must thank all my Committee colleagues for their constant involvement and for the excellence of their work. We will continue to make every effort so that the Association can count on a constitution and regulations that allow it to be at the leading edge of the industry, effective and able to respond to its members' needs, as always, at all times. **RH**

“ As part of its guiding role as the keeper of the constitution and regulations, the Committee ensures that the principle of democracy is applied throughout our Association ”

A handwritten signature in dark ink, appearing to read 'Jean Mongeau', written in a cursive style.



# SMITHS DETECTION

because trucks and  
containers can be  
**guided weapons**

Container trucks can carry weapons, explosives, drugs and people. Yet less than 1% of them are inspected as they travel between countries.

Heimann CargoVision X-ray inspection systems by Smiths Detection are built to help Customs, Security Organizations and Border Authorities fight against terrorism and contraband.

With over 50 years' experience, and more than 190 Heimann CargoVision units in use worldwide, Smiths Detection offer the ideal solutions to all of these challenges.

Stationary, relocatable and mobile systems designed by Smiths Detection are highly efficient, cost-effective and perfectly adaptable to all security environments. They will guarantee you fast and efficient inspections without disrupting the traffic flow.

Smiths Detection has the most comprehensive range of detection technologies in the world today.

Thanks to our flexible approach, we adapt our systems to your specific needs and present the best possible solution to your requirements.

36 rue Charles Heller  
94405 Vitry sur Seine Cedex, France  
Tel: 0033 1 55 53 55 55  
Fax: 0033 1 55 53 55 35

**smiths**





[www.kalmarind.com/serviceconfigurator](http://www.kalmarind.com/serviceconfigurator)

**I DO IT  
MYSELF**

**WE DO IT  
TOGETHER**

**YOU DO IT  
FOR ME**

## **KALMAR SERVICES** MAKING BUSINESS DECISIONS AS EASY AS EVERYDAY LIFE CHOICES

In your everyday life, you decide whether it's better to do something yourself, do it with someone else or to call upon a professional to do everything for you. We believe you deserve the same flexibility in your business life. That's why if you want to take care of your own service, we provide the best after market network in the industry. But if you prefer working together, you can benefit from our added-value services such as smart products and service inspections. We can even take you to the ultimate service level where you only pay per performance and one invoice gives you total peace of mind. Sound interesting? Check out our online service configurator to learn more.

[www.kalmarind.com/serviceconfigurator](http://www.kalmarind.com/serviceconfigurator)



*make things easy*