Since the introduction in the 1950’s, Roll-on/roll-off (RORO) technology has enabled a large efficiency gain in the transportation of wheeled cargo like cars, lorries and trailers. The technology has been most successful in ocean-going vessels. Congestion in the economic heart of The Netherlands is putting pressure on the transport sector to look for alternatives to road haulage. A RORO service can offer a reliable scheduled delivery against the same price as road transportation for non time critical cargo (trailers).

The Dutch Ministry of Transport and Public Works decided to execute a test with an inland RORO vessel, sailing from Rotterdam to Tiel, Zaan-dam and Hoorn, in the spring of 2009. The RORO vessel is equipped with a flexible loading bridge, allowing loading and unloading trailers. A series of tests have been conducted on April 19-22, 2009. The vessel transported twenty-eight trailers on five different routes. Eleven companies participated in the test. This type of inland navigation has never been executed in The Netherlands before. The vessel is carrying trailers unaccompanied, therefore the lorry can be used for other jobs while the trailer is transported over water.

The objectives of the test are the assessment of the technical operations and possibilities to integrate the service in existing supply chains. Besides trailers the vessel could also transport rolling equipment like cranes are tractors and is therefore very versatile. The vessel can accommodate thirty-one trailers on two decks and can also navigate in coupled operation (with an extra barge), which increases the capacity (seventy-two trailers). The loading bridge can cover differences in height between the water level and quay wall of approximately 1 to 3 m. This allows the vessel to berth easily at almost any quay wall, without extra investment in the quay structures or harbour basins.

The tests show positive results in relationship to sustainability. The tests have reduced the road haulage movements with a length of 3.805 km (or in terms of congestion parameters: 1 vessel is 1 km less congestion). If the test is run as scheduled services, the reductions could reach:

- Approximately 1.3 million road haulage transport km per annum (260 km less congestion) with one RORO vessel
- Approximately 2.75 million road haulage km per annum (550 km less congestion) with the RORO vessel in combination with a RORO push barge.

The test resulted in a reduction of 5,200 kg CO₂ and 38 kg NOx. The test did not reduce the exhaustion of fine dust, but produced similar results as road haulage. The break-even point (RORO versus road haulage) is twelve trailers per route in the exhaustion of CO₂ and NOx. Significant reductions of noise can be reached if the vessel carries more than eight trailers.

In the current market circumstances (financial crisis) the RORO concept is not expected to be financially feasible because of the competition with road haulage. The market prices in road haulage have decreased dramatically. The public authorities could consider compensating potential exploitation losses. An interesting opportunity to use the RORO concept lies in the upcoming reconstruction of the motorway A15 between Rotterdam and Germany. This can be combined with the supply of construction materials to the port expansion project Maasvlakte II. The RORO concept could serve as a kind of public transport and safeguard transport companies from severe delays during the reconstruction of motorway A15.

Arne Baruch
Senior Advisor, Ministry of Transport and Public Works in the Netherlands

Hans Vermij
Strategic Advisor, DHV, the Netherlands
Barges way ahead of Copenhagen

European inland navigation can already meet the 30% reduction target – and companies and governments who support inland navigation will get a short cut in reducing their own carbon emissions.

Notwithstanding the Copenhagen summit results, we all agree that achieving significant carbon reduction aims is vital. Only we can make this world a better living place for the present and future generations. And European inland navigation is ready to make a substantial commitment to helping the world to work together to achieve those aims. Inland navigation is already the most environmentally friendly form of transport (3.5 times less CO₂ per ton-km, in comparison to road), but that’s not enough. It has reduced its fuel consumption since 1990 by 15%. Today, the sector is actively working to make even more of a contribution to cutting down on global warming and the European Barge Union (EBU), European Skippers Organisation (ESO) and Inland Navigation Europe (INE) are confident that the challenge will be met.

The technology and techniques exist to allow inland navigation to say that we can achieve a 30% reduction in carbon emissions today. A fuel performance contest project in the Netherlands has already achieved these savings thanks to fuel-saving on-board equipment and this can be applied across the entire European fleet. This, in combination with RIS (River Information Services – an intelligent transport system that connects ship to shore) means ship operators can use optimal cruising speeds and optimal vessel operation, responding to the conditions on the river, to achieve even further reduction in carbon emissions as long as navigable waterways are well maintained.

This makes transport by water the obvious choice for companies wanting to make their own contribution towards reducing carbon emissions and global warming. Including waterways and transport by barge in the supply chain is an intelligent business choice – not only does this reduce carbon emissions, it also avoids road congestion. And encouraging modal shift to increase use of water transport is an intelligent political choice for governments wanting to keep the promises they have made over the last fortnight.

With the rest of the world looking for reductions by 2030, inland navigation will look towards carbon neutrality by 2030. We do not have to wait – and we will not wait. As the oldest form of transport, we are committed to use the newest forms of technologies. With the support of government and business, projects already in existence, such as electric ships, clean fuel cells and using liquefied biogas can be accelerated and we can and should not just reduce the harm we do to the environment but eliminate it.

Caroline Smith
Inland Navigation Europe (INE)

PIANC ‘Navigates the Environment’ - Highlights from Recent Environmental Meetings in New Orleans

On October 28, 2009, in New Orleans, Louisiana, the US Section of PIANC held a one-day technical seminar on ‘Navigating the Environment – Managing Risks and Sustaining Benefits’. The seminar was organised by PIANC’s international Environmental Commission (EnviCom) and PIANC USA. Over seventy people participated in the technical seminar which focused on topics such as Climate Change, Ecosystems and Dredging, Comprehensive and Sustainable Sediment Management, and Coastal Flood Risk Management. There were presentations from more than twenty experts from the United States, Germany, United Kingdom, and The Netherlands, who represented government agencies, ports, universities and other non-profit organisations.

An informal ‘Young Professionals’ Happy Hour was held in the hotel lobby bar immediately following the

The USACE New Orleans District organised a technical tour for the EnviCom members where they sailed along the Gulf Intracoastal Waterway to see the ongoing construction of the navigable hurricane storm surge barrier in the vicinity of the Bayou Bienvenue Wetlands Complex.
EnviCom and the PIANC USA Commissioners held committee meetings in New Orleans in conjunction with the seminar. In addition, the USACE New Orleans District organised a boat tour for the EnviCom members, where they sailed along the Gulf Intracoastal Waterway to see the ongoing construction of the navigable hurricane storm surge barrier in the vicinity of the Bayou Bienvenue Wetlands Complex. The presentations from the seminar have been posted on the PIANC USA website (www.pianc.us), along with the seminar attendance list and photos.

- Photo gallery link: http://www.pianc.iwr.usace.army.mil/negallery2009NTE.cfm

Kelly Barnes
PIANC USA

**BRAZIL**

**Offshore Salt Terminal – Areia Branca**

Codern – Cia Docas do Estado do Rio Grande do Norte, a governmental company responsible by the Areia Branca Offshore Salt Terminal operation since 1972, has decided to expand the island to increase its storage capacity. The joint venture CCQ (Constremac/Carioca/Queiroz Galvão) started in November 2009 the construction of the island expansion. The terminal is located at 14 km offshore Areia Branca, Rio Grande do Norte, Brazil, and the project comprises an extension of approximately 100 m using steel sheet piles cells. The project of the barge’s wharf was conceived using a deck on pile steel structure and steel jackets. Detailed design and construction methods are being developed by EXE Engenharia, Curitiba, Brazil.

Leandro Sabino
EXE Engenharia

**PANAMA**

**Multipurpose Pier, Cinta Costera, Panama City**

The government of Panama is widening, in about 24 m, the Avenida Pablo Arosemena, next to the Seafood Market in Panama City. The existing small piers which are used by fishermen, passengers and coastal shipping will be demolished and replaced by a new multipurpose pier approximately 135 m in length. The project is being implemented by the Brazilian
Bahia Mar Yachting Center, a truly unique facility and winner of the 2010 PIANC Marina Excellence Design Jack Nichol Award

The Recreational Navigation Commission is excited to announce that the Bahia Mar Yachting Center has won the 2010 PIANC Marina Excellence Design Jack Nichol Award. The selection committee determined the Bahia Mar Yachting Center best represents the functional, aesthetic, and environmental evaluation criteria.

Located in Fort Lauderdale, Florida, Bahia Mar Yachting Center is a start-of-the-art, dual function facility serving as both a public yacht center that offers world class facilities to some of the world’s most luxurious yachts and a boat show venue - home of the Fort Lauderdale International Boat Show.

The marina’s principle features include large full-service slips with corresponding clear water widths to accommodate today’s longer and wider boats, Bellingham Marine’s Unifloat® concrete floating dock system with extra wide walkways and high dock freeboard, a functional slip layout that meets the needs of the marina as well as the boat show, and a site electrical transformer and distribution system that provides ample power to account for the high utility demands imposed by the boats on a daily basis as well as the massive utility demands of the boat show.

Contractor Norberto Odebrecht SA and detailed design is being developed by EXE Engenharia, Curitiba, Brazil.

Leandro Sabino/EdersonLucas Garrett
EXE Engenharia

IAPH

As of December 1, 2009 Mr. Susumu Naruse has taken office as IAPH Secretary-General, succeeding Dr. Satoshi Inoue, as so appointed at the IAPH Board of Directors meeting in Genoa, Italy, May 2010. Mr. Naruse is not new to IAPH. Since 1999, he has played an active part in the Association, serving on the Executive Committee (2001-2006) and on the IAPH Port Planning & Development Committee (PPDC) firstly as a member, Vice-Chairman and then Chairman. As Chairman of the PPDC, he took the leading role in preparing very stimulating reports entitled ‘Forecasts of the World Container Throughput’, ‘Cruise Terminal Planning’ in 2007 and ‘Introduction to Port Preparedness for Tsunami’ in 2009. As entrusted by the Board, Mr. Naruse is determined to do what he can do for further development of this global association in the years ahead.

Cinta Costera currently

Widening of the Cinta Costera and multipurpose pier

IAPH
Bahia Mar Yachting Center is a state-of-the-art, dual function facility serving as both a public yacht center and a boat show venue.

The elegance of Bahia Mar reflects the beauty of the boats moored along her docks.

The marina’s full-service slips offer the latest in modern amenities including multiple telephone lines, high speed digital lines for computer equipment, high speed internet access, direct access to sewage pumpouts, and an option of single- or three-phase electrical service for slips over 80 feet. Floating walkways and finger piers are extra wide and stable designed to cater to large vessels and to handle golf carts, small forklifts, large crowds, and the extra boats that come for the annual Fort Lauderdale International Boat Show. Bahia Mar also includes a number of innovative design features that enables the facility to make an easy transition from marina to boat show venue. Utility and structural connection points for temporary docks, storage cabinets, and extra utility outlets are just a few of the items incorporated into the design of the marina to accommodate the boat show.

In addition to its highly functional design centered on comfort and convenience, the marina is a certified Clean Marina by the state of Florida. Also, a number of design features and operational programs have been incorporated to promote water quality and reduce the marina’s impact on the surrounding environment.

Operating as a dual purpose facility, ease, convenience, and accessibility are at the very core of Bahia Mar’s design. The elegance of Bahia Mar reflects the beauty of the boats moored along her docks. A truly unique facility, Bahia Mar seamlessly combines innovation, functionality, and beauty to create a marina that promotes public access and the boating lifestyle.

Bob Nathan, Lars Odhe, Jessica McIntyre & Fabiana Maccarini
PIANC RecCom Editing Committee
Smart Rivers 2011 Conference – Save the date!!!

Mark your calendar for the next installment of the outstanding Smart Rivers Conference series, a biennial forum bringing together an international group of professionals involved in inland / river transport from around the world.

This three-day technical specialty conference is organised by PIANC USA, along with more than twenty partnering organisations. The concept of ‘Smart Rivers’ sprang from a group started in 2004 called ‘Smart-Rivers21’, an international coalition intent on realising ‘Strategic Maritime Asset Research and Transformation for 21st Century River Systems’. It began with a cooperation agreement between American and European partners, and was followed by the organisation of Smart Rivers 2005 Conference in Pittsburgh, Pennsylvania. The Smart Rivers 2006 Conference was held in Brussels, Belgium, and the 2007 conference was held in Louisville, Kentucky. The organisers decided to move to a biennial schedule and Smart Rivers 2009 was held last September in Vienna, Austria.

Themes for the 2011 conference in New Orleans will include topics such as ‘Smart’ Service Design and Innovation, System/Technology, Public Policy/Finance, Environmental Management, Flood Protection/Mitigation, Port & Landside Economic Development, etc., with a particular emphasis on making this a global conference. A Call for Abstracts will be issued this summer (2010). Two full days of technical sessions are planned for September 14 & 15, 2011, along with industry exhibits, networking functions, workshops and technical tours.

2011 Conference Hotel:
Westin New Orleans Canal Place
100 Rue Iberville, New Orleans, LA 70130 USA
For Inquiries: 1-(504) 566-7006
http://www.starwoodhotels.com/westin/property/overview/index.html?propertyID=1763

Presentations from Smart Rivers 2009 are posted at www.smartrivers.org.

Kelly Barnes
PIANC USA

7th Annual Conference
ESPO

On May 27-28, 2010, ESPO is organising its 7th Annual Conference in Helsinki, Finland, in partnership with the Port of Helsinki and the Finnish Port Association. The central theme of the Conference will be ‘Living and Working with Ports’, a theme which puts the human face of our global industry centre-stage.

Some highlights of the programme:

• Dr. Jean-Paul Rodrigue of Hofstra University New York will discuss with industry leaders the implications of the crisis in terms of market structures and organisation in the port and shipping sector
• The ports of Gijón (winner of the first ESPO Award) and Helsinki will present creative ways in which ports can function in harmony with surrounding communities.
• A series of parallel workshops will compare practical solutions to promote the port as a place to work, live and experience.
• ESPO will introduce its new ESPO Code of Practice on Societal Integration of Ports.
• Prof. Theo Notteboom of the Institute of Transport and Maritime Management Antwerp will present a state-of-the-art report on port labour and port-related employment in Europe and discuss his findings with policy-makers, port authorities, service providers and trade unions.
• Lloyd’s List Brussels’ correspondent Justin Stares will moderate a thought-provoking political debate with Members of the European Parliament on the future direction of European port and transport policies.

Preceding the actual conference, a special interest seminar is scheduled on the development of Russian and Baltic Ports, which is organised in co-operation with the Russian State Port Agency ‘Rosmorport’ and the Baltic Ports Organisation. To round off these two intensive days of debate, we are offering a technical visit to Vuosaari Harbour, the brand-new outer harbour of Helsinki, as well as a relaxing post-conference tour on Saturday to the beautiful neighbouring port-city of Tallinn.

You will find the full programme enclosed. Registration can be done online via the conference website (www.espo-conference.com) where all practical information can be found as well.

Patrick Verhoeven
Secretary-General of ESPO
The 5th International Conference and Exhibition Danube Summit 2010

The 5th International Conference and Exhibition Danube Summit 2010 will take place on May 31-June 2, 2010 in Linz and Enns. The event will be organised by EWP Communication and via donau. Host of the event this time is Christian Steindl, Managing Director of the Port of Ennshafen.

Under the motto ‘Green Danube: putting companies back into the black’, all members of the Danube Community are invited to attend the 5th Danube Summit. In the classical tradition, this event will bring together key actors and high-ranking officials of the Danube riparian countries who will together seek solutions for the future development of a sustainable and ecologically sound transport on the Danube River. The event will also include exhibitions, technical visits as well as networking and social events. All the ingredients are gathered to make it a must-attend Danube experience.

The Danube Summit is not restricted to members of the Danube Community. Any person with a professional interest in inland waterway transport, transport and logistics or telematics is most welcome to attend as a delegate.

A preliminary programme will be available shortly on the Danube Summit website at www.danubesummit.com.

For more information about the exhibition, please contact Borka Mikulic (borka.m@danubesummit.com – +44 (0) 1275 540 582). To register as a delegate, please contact Julian King (Julian.king@ewpcommunications.com – +44 (0) 1737 226153).

13th International Riversymposium

For the first time in its history, Riversymposium will be held in Perth, Western Australia and at a later time in the year, on October 11-14, 2010. The 13th International Riversymposium will bring together a diverse audience for interactive and vibrant discussion.

Managing our rivers has revolved around altering the movement of water – obviously through dams, extraction for irrigation, mining, water supplies, industry and water transfers and more cryptically when we consider groundwater use, virtual water, water sensitive urban design, water recycling and adjustments to environmental flows. The critical issues that will be discussed at the 13th International include:

- Water for industry
- Rivers and Catchments
- Community
- Policy and Regulation
- Water Sources
- Climate Change

For more information, please visit the website www.riversymposium.com.

3rd International Conference on the Management of Coastal Recreational Resources

The 3rd International Conference on the Management of Coastal Recreational Resources will be held in the historic city of Grosseto, situated in the magnificent region of Tuscany in Central Italy, on October 27-30, 2010. This conference is the third in the biennial series on Management of Coastal Recreational Resources (MCRR) organised by the Euro-Mediterranean Centre on Insular Coastal Dynamics (ICoD) within the International Environment Institute at the University of Malta. This international event is characterised by its focus on selected coastal management issues relating to beaches, yacht marinas, ecotourism and conservation, and the impact of coastal hazards on such resources.

The conference is aimed at academics in the natural and social sciences, researchers dealing with coastal hazards reflected by ongoing climate change, project managers, tourism professionals, infrastructure investors and staff from the private sector and government agencies whose work involves integrated coastal area management practices and the development and management of coast-related recreational amenities. The conference will also be of interest to managers of natural resources and environmental agencies, urban and coastal planners, non-governmental organisations (NGOs), environmental economists and coastal municipalities.

Conference topics include:

- Beach Management
- Yacht Marinas and Yachting-Related Activities
- Coastal Ecotourism
- Coastal Hazards

For further information about the 3rd International Conference on the Management of Coastal Recreational Resources (MCRR3), kindly contact the Conference Secretariat at mcrr3-2010@um.edu.mt or visit our website at http://www.um.edu.mt/iei/mcrr3-2010.
NEWS FROM THE NAVIGATION COMMUNITY

Organiser of the Ice Day Conference is the Centre for Maritime Studies of the University of Turku in Finland.

For further information on this conference, please contact Mrs. Marja Luomanen or Mrs. Kirsi Laitio (tel. +358 (0)40 779 9485 and tel. +358 (0)40 779 9483 or e-mails: marja.luomanen@utu.fi / kirsilaitio@utu.fi) or visit http://mkk.utu.fi/dok/k2010/iceday.pdf.

Offshore Arabia 2010 conference

The Offshore Arabia 2010 conference and exhibition will be held at the Dubai International Convention Centre, Dubai, UAE on March 29-31, 2010.

The event is held under the patronage of H.H Sheikh Mohammed Bin Rashid Al Maktoum, Vice-President and Prime Minister of UAE and Ruler of Dubai. Offshore Arabia 2009 comes at a time when global co-operation is most needed to facilitate the global dialogue in managing energy for sustainable growth and climate change. The event has evolved over the years and provides an excellent overview of a cross section of the key issues in the energy industry and the environment. Corporate Social Responsibility (CSR) will be integrated and highlighted as part of the oil industry’s role in society. We intend to bring forth key issues and concerns and our aim is to have highly knowledgeable and skilled professionals provide a wider range of solutions by sharing their thoughts.

Energy and environment are essential to sustainable development, therefore we remain focused and committed to energy, environment, advanced technologies, renewables and sustainable development. We will continue to encourage growth as a basis for all human betterment. Incorporating within our mission, the UN Millennium Development goal, which calls for the implementation of sustainable development and its three pillars – economic development, social development and environmental protection.

More information about this event can be found at http://www.offshorearabia.ae.

Student and Young Professional Events at ASCE Ports 2010 Conference

The ASCE Ports 2010 Conference will take place in Jacksonville, Florida on April 25 - 28, 2010. During this conference, several Student and Young Professional Events will be organised:

- Young Professionals’ Happy Hour: 5:00 p.m. – 6:00 p.m., April 25 (Sunday)
- Student Paper Competition Awards: 1:30 p.m. – 4:30 p.m., April 25 (Sunday)
- Student Poster Session: 10:00 a.m. -12:00 p.m., April 27 (Tuesday)
- Job Fair: 1:00 p.m. – 4 p.m., April 27 (Tuesday)

More information about this event can be found at http://content.asce.org/conferences/ports2010.

Kelly Barnes
PIANC USA

Port Infrastructure Seminar Delft University of Technology

Delft University of Technology is pleased to invite you to the Port Infrastructure Seminar on 22 and 23 June 2010.

This seminar is organised by the Faculty of Civil Engineering and Geosciences in association with the Port of Rotterdam Authority, Port of Amsterdam Authority and Dutch Ministry of Public Works, Transport and Water Management. It aims to stimulate innovation in port infrastructure design, operations and maintenance through the presentation and exchange of results of applied research and technologies.

In conjunction with the Seminar there will be a display of recent R&D and technological results, systems and services for the port industry. Prior to the Seminar, on June 21, there is the opportunity to visit Futureland, the visitor centre for the new port development Maasvlakte 2, and the ongoing works (www.futureland.nl).

In the beginning of 2010 a Second Announcement will present more information on the Program. Up-to-date information on the Seminar can be found on the website www.portseminar2010.tudelft.nl.

If you want to participate in this Seminar and present a paper, please send your abstract of maximum 300 words to portseminar2010@tudelft.nl before February 1, 2010. Authors will be notified by the seminar secretariat by March 1, 2010 on the acceptance of the papers and the further details of the paper submission.