

**PIANC MMX CONGRESS - LIVERPOOL 11-14 May 2010**  
**PROGRAMME OF TECHNICAL SESSIONS**

Session		Session A	Session B	Session C	Session D
am		<b>Congress Opening Ceremony Keynote Addresses</b>			
		<b>Technical Keynote Addresses</b>			
Tuesday 11 May	1	<b>Panama Canal</b>	<b>Impact of ultra-large container ships</b>	<b>Climate change, adaptation and mitigation</b>	
		330 Panama Canal Expansion: Project Management of the Works	4 ULCS in Bremerhaven/Germany- Technical demands and experiences	72 Climate change and navigation mitigation	
		77 Panama Canal: Numerical evaluation of filling/emptying systems for the new locks	6 Port of Le Havre facing the challenge of gigantism of container vessels	123 Tidal wave disaster by high waves	
		151 Panama Canal: Determination of hawser forces using numerical and physical models	188 Synergy of theory and practice for ultra large containerhips at Antwerp	15 Impacts on navigation and waterways of climate change: German research	
	231 Panama Canal: Study and 3d modeling of density and discharge currents	137 Container terminal operating system trends	221 Planning navigation infrastructure for an uncertain future		
	2	<b>Working with Nature</b>	<b>Container and LNG Terminals</b>	<b>InCom - Inland Navigation Innovations</b>	
		223: Working with nature	41 LNG-Terminal of Zeebrugge : future developments	InCom Innovations and Activities	
		273 Developing procedures for dredging and disposal of contaminated sediments: Finland	213 South Hook LNG Refurbishment and reconstruction	32 RIS on the way to maturity	
		13 Planning with nature: ecological modeling software for waterways maintenance and construction in Germany	131 Upgrade of the jetty trestle at South Hook LNG terminal, Milford Haven	85 Inland navigation of the future	
		264 Floodsearch – Hydrotoxic Investigations of Contaminated Sediments in an Annular Flume	132 JadeWeserPort deep water container terminal Wilhelmshaven Germany	92 Adapting and developing hands free mooring for navigation locks	
pm					

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Wednesday 12 May	am	3	Inland waterways and terminals	Maritime Quays and Terminals	EnviCom - Reducing lead times for infrastructure projects	Materials in Port Infrastructure
			217 Fiber optics monitoring solution for canal dykes	168 Hydraulic fills manual	327 Reducing lead times for waterways and port infrastructure projects	229 New guidance for the use of concrete in maritime engineering
			234 Channel regulation project for the Middle Yangtze river	197 Land reclamation project - Dalian port		182 Upper Mississippi lift-in-unit lock wall monoliths
			169 Developing a business process model for bridge management	270 Rapid-improvement technology on surface layer of ultra-soft ground		21 Fatigue analysis for reinforced concrete caissons and pile-supported port structures
	282 Old sluices never die, but what about shipping?	263 Seismic risk assessment and design guidelines for Italian port structures using GIS technology:		238 Protection of structures against MIC/ALWC - A practical approach of a proven solution		
	4	Inland waterways	MarCom - Innovations in Port Design	Climate change, adaptation and mitigation	Life-Cycle Approach to Maintenance	
		243 the Kyung In Canal as a short sea destination and IWT project in Republic of Korea	MarCom Innovations and Activities	186 The greening of inland navigation - Rhine navigation	179 Master plan for waterways maintenance	
		26 Removing an inland navigation bottleneck : the transit of the river Lys in Kortrijk	174 New PIANC guidelines for berthing structures, related to thrusters	148 Fuel economics in inland shipping	51 Strategic Asset Management of the Port of Melbourne	
		154 Restoring Navigability to the upper Rhone	325 PIANC Working Group: Horizontal and Vertical Channel Dimensions	224 Climate change: mitigation and adaption inland waterways England and Wales	76 A maintenance system for waterways infrastructure	
	222 Container transport opportunities and risks on the Danube: Austria to the Black Sea	MarCom Activities Survey Results MarCom Future Topics	147 Towards EU emissions cap for maritime shipping?	322 British Waterways' Asset Management Model		
	5	Poster Session 5a Port Equipment	Poster Session 5b Maritime Projects	Poster Session 5c Dredging and Coastal Engineering	Poster Session 5d Port and Coastal Engineering	
		Trelleborg Technical Presentation -title to be confirmed	207 Potential of short sea shipping in the US : a comparison with European experience	89 Risk assessment of sediments: Harstad harbour, Norway	Dredging International Technical Presentation -title to be confirmed	
328 Durability of rubber fenders in hot climates - impact of the PIANC heat ageing specifications		228 3D capture of bridges using laser technology	215 Constitution of a numerical wave data-base along the French Mediterranean coasts	Westminster Dredging Technical Presentation -title to be confirmed		
165 Presentation cancelled		Aecom Technical Presentation -title to be confirmed	309 Effect of coastal vegetation for reducing tsunami force in 2007 Solomon Island Tsunami			
pm	6	CoCom Ports and Port Structures	Navigation Channels	Working with Nature	Ports and Cities; Upgrading old port areas and facilities	
		141 Potential maritime barriers to international trade for countries-in-transition	286 Geo-morphological and hydrodynamic risks for dredged channels – A practical approach	16 Substitution strategy for hydraulic structures, to meet challenges of a new century	323 Stourport Basins Restoration - Maintaining and Building Heritage	
		38 Container terminal development in the south of Viet Nam	100 Probabilistic design of channel widths	303 Innovations in sustainable development of nourished coastlines	326 Isle of Man Runway Extension	
		124 Multi-part precast concrete wharf and revetment structures	44 Research and application of technique of nautical depth in China	39 Working with nature: Environmental efficiency in port projects and use	20 Renewing the 'Great Sea-Lock' in the port of Emden: feasibility study	
	259 Chennai Port Mega Terminal development - issues and solutions	293 Contribution of aids to navigation to efficient channel design	246 Steps towards development of green dredging technology	63 U534 the U-boat story, a story of regeneration		
	7	Dredging and sediments	YPCoM Navigation Channels	Working with Nature - Bank & Shore Protection	CoCom Ports and Tsunamis	
		242 Risk-based approach to disposal of TBT contaminated sediments	78 Minimum fairway widths for inland navigation channels	61 Monitoring of ship-induced loads on bank protection of waterways	308 Field survey on harbour disaster in Yangon Port due to cyclone Nargis	
		173 A new disposal strategy for the Western Scheldt, reconciling port access and conservation	219 Squat measurement in Seine: impact of the channel deepening	71 Developments in toe and berm design for breakwaters	91 Tsunami effects on ship motions and mooring loads	
268 Sustainable solutions for the treatment of dredged sediment: the "Solindus" project		46 Channel design & limiting wave conditions for nuclear submarines, Barrow-in-Furness, UK	74 Experiences with revetments for inland waterways in Germany	210 Large tsunami experiments		
304 Use of dredged sludge as fill: Osthafen, Bremerhaven Germany	255 Optimization of Shastra estuary harbour channel, India	97 Application of muddy soil filled geotextile tubes in embankments	305 Development of urgently emerging Tsunami breakwater – Buoyancy -driven vertical piling system			

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Thursday 13 May	am	8	<b>Renovation of Waterway Infrastructure</b>	<b>Modern Mooring Systems</b>	<b>Environmental Management</b>	<b>RecCom - Marinas and Yacht Harbours</b>
			2 Damage and repair of an old weir gate in the Meuse after calamity	55 Safety of high freeboard ships in ports	11 Impacts of climate change: adapted floodplain management of German estuaries	31 Emerging materials for the marine environment: PIANC RecCom WG 15
			25 Improvement of navigation conditions on the Romanian-Bulgarian sector of the Danube	79 Reliability design of marine fender systems	310 Sustainable management of maritime services: aids-to-navigation services	189 Ship wave reduction for an inland marina with a breakwater
			86 Feedback on repairing works on French navigable dikes and banks	82 Numerical modeling of waves and ship motions: MoorMasterTM units, Salalah	12 Effects of climate change on riverine vegetation and its impact on managing navigable rivers	281 Measures to solve sedimentation issues near a beach, boat launching ramp and Marina
			301 The 1890 Blackwood Screw Jack Shiplift, Barbados	201 Large vessel observations: turning circle, breaking distance and channel dimensions	14 From artificial to natural bank protection: design models for reed habitats in River Elbe	294 Floating Breakwater modeling for recreational water park
	9	<b>Seine-Scheldt</b>	<b>Navigation Channels</b>	<b>Dredging and Monitoring</b>	<b>Marine Safety Use of AIS</b>	
		329 Seine-Nord Europe Canal : Central Segment of the Seine-Scheldt Waterway Link	126 Risk mitigation through DUKC - Case study port of Melbourne	52 Water quality monitoring in Tokyo and Ise bays using ferries	181 Implementation of AIS on inland waterway networks, Netherlands and Germany	
		164 Dealing with salt water intrusion and water shortage in the future Seine Scheldt West	109 Passing vessels: interaction with large moored container ships	185 Suspended sediment plumes - dredging in the New York/New Jersey Harbor	292 Processing AIS information to improve channel design	
		29 Pre-study of the hydraulic works for the Seine-Scheldt-East Project	256 New comparisons of PIANC and CADET ship squat predictions	225 Monitoring dredged material disposal sites at sea: links to licensing decisions	58 Improving vessel safety using on-board tracking/recording systems	
		251 Water resources for the Sein-Scheldt-East project	129 Evaluation of impact of flow fields on manoeuvring	232 Improving the quality of environmental studies for inland waterway projects	167 New European standard for calamity information exchange on inland waterways	
10	<b>Poster Session 10a Inland Waterways</b>	<b>Poster Session 10b</b>	<b>Poster Session 10c</b>	<b>Poster Session 10d</b>		
	136 Improvement of European transport corridor VII in Serbia	283 Stability of submerged groins under grazing waves	Atkins Global Technical Presentation - title to be confirmed	300 Keel blocks - forgotten heros		
	274 The Blanc Pain protection gate: design of a security structure operated by remote control	199 A simulation study for LNG terminal throughput capacity		331 Revolutionary Coping Beam Construction		
	244 Hydrodynamics of filling/emptying system in high head locks using unilateral culvert with double valves	Royal Haskoning Technical Presentation - title to be confirmed	27 The Liverpool Canal Link			
pm	<b>Technical tours</b>					

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Friday 14 May	am	11	<b>Locks</b>	<b>Maasvlakte 2</b>	<b>Dredging and Sediments</b>	<b>River Information Systems, IT and Communications</b>
			28 Innovations in Navigation Lock Design	107 Maasvlakte 2 : development of the master plan	5 Trends in application of generic sediment management systems	33 MarNIS - Maritime Navigation and information services
			80 Research and application of new hydro-shiplift for high dam navigation - China	106 Maasvlakte 2 reclamation : maintaining nautical safety during construction	241 Dredging in France - evolution of the practices	239 E-learning platforms to achieve developments inland waterway transport
			290 On hawser force criteria for navigation lock design	45 Waiting facilities for inland shipping on Maasvlakte 2	99 On construction of large-scale waterway at offshore reef island area	272 Navigation Safety Management on Finnish Waters
			202 Combined culvert and through-gate filling and emptying for locks under reversing heads	318 Maasvlakte 2: design of an innovative cobble sea defence	37 Contaminated dredged marine sediments: a UK management framework	152 The Rhone navigation management centre
			3 Venice Malamocco Navigation Lock	320 Maasvlakte 2: Contractual Approach	311 Probabilistic optimization of ports: effects of sedimentation	233 River information services for logistics users
		252 Ports for the new class Vib lock at Ivoz-Ramet, River Meuse, Belgium	104 Maasvlakte 2: Environmental monitoring of construction	313 Bypass Harbours on Littoral Transport Coasts	298 River information services (RIS) in Germany	
	pm	12	<b>Developments in inland barge transport</b>	<b>Breakwaters</b>	<b>Maritime Quays and Terminals</b>	<b>Marine Safety and Risk Analysis</b>
			34 Niche markets in inland navigation and their influence on capacity	142 Overtopping physical model tests for the rehabilitation of Sines West Breakwater	66 Maritime design standards in the 21st Century - UK and Eurocodes	269 International Safety guide for inland navigation tank-barges and terminals (ISGINTT)
			125 Developing inland waterway transport and saving land resources	146 Designing a new low-reflectivity quay wall caisson	220 Seismic design of pile supported and blockwork wharves	172 Structural reliability analysis of quay walls with steel sheet piles
			163 Traffic management for the Juliana Canal	156 Ostend : Breakwaters and seawalls in the harbour	285 Design and construction considerations for floating marine structures	130 European MarNIS project gives sea ports a new ris management tool
			275 Innovations in inland navigation - Keitelei Canal	240 Landeyjahöfn Ferry Harbour: south coast of Iceland	265 Innovative floating passenger and RoRo freight facilities on the river Mersey	230 Needs and technologies for port security
314 Container Transferium Rotterdam			257 Manifa (Saudi Arabia) Large scale experiences with breakwaters	150 Innovations for working in remote exposed locations - experiences from the Isles of Scilly	166 Ship steering safety: Yangshan Deep Port, Shanghai	
	214 Expansion of the river Weser to provide a modern inland waterway to German seaports	267 Database of major breakwaters around the world	62 Innovative quay structures, Eemshaven port development, Eemsmoed, the Netherlands	324 Demolition of Battleship Murmansk		
	13	<b>Closing Debate and Prize Presentations</b>				