

PIANC Japan - MLIT - OCDI - CDIT



# PIANC MarCom Seminar in Japan 2013

## **Activities of MarCom**

Francisco Esteban Lefler Chairman of MarCom



Tokyo, September 13, 2013



#### **Contents**

- MarCom in PIANC
- MarCom members
- MarCom activities in PIANC
- MarCom meetings
- Working Groups
- Reports published in 2012-2013
- Reports expected for publication
- Active and in formation Working Groups
- Cooperation with other PIANC Commissions



# The World Association for Waterborne Transport Infrastructure

### **Vision:**

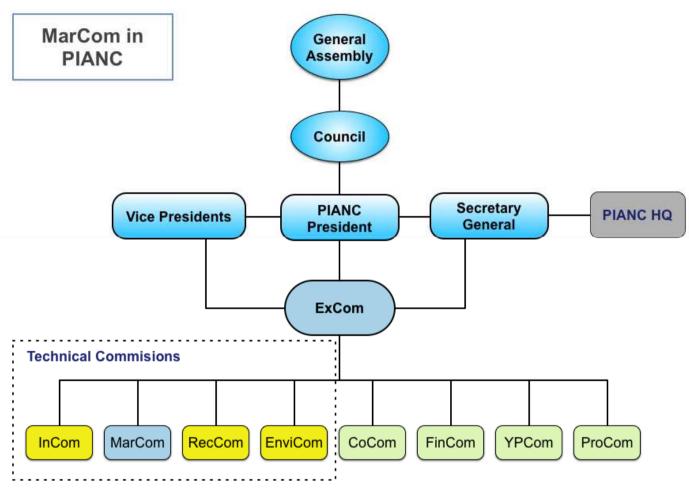
PIANC shall enhance its position as the leading international source of waterborne transport infrastructure related knowledge

### **Mission:**

PIANC shall continue to provide expert guidance and technical advice through high-quality technical reports and will keep the international waterborne transport community connected through a variety of products on a global scale

Source: PIANC Strategic Plan







**Chairman: Francisco Esteban Lefler (Spain)** 

**Secretary: Dominique Etienne (France)** 

**Belgium: Luc Van Damme** 

Hadewych Verhaeghe (YP)

Colombia: Gerardo Castaño

Juan Francisco Herrera

Denmark: Hans F. Burcharth

**Egypt:** Adel Banawan

Finland: Veikko Saukkonen

**Kim Andersson-Berlin (YP)** 

France: Dominique Etienne

**Germany: Stefan Hauser** 

India: Bhuvaragan Poiyaamozhi

Iran: Ali Akbar Safaaei

**Italy:** Andrea Ferrante

Japan: Yoshiaki Higuchi

Korea: Taek Hee Han

The Netherlands: Arjan van der Weck

**Norway: Tore Lundestad** 

Spain: Rafael Escutia





### Members (II)

Sweden: Kjell Karlsson

**Mattias Sandell** 

**United Kingdom: Peter Hunter** 

**Stephen Cork (alt)** 

U.S.A.: E. Dan Allen

Vahan Tanal (alt.)

**Turkey: Burak Bilgin (2013)** 

YPCom Observer: Javier Almazán

(2013)

Fer M. J. van de Laar IAPH:

### 28 Members, of which:



19 National Sections

1 IAPH

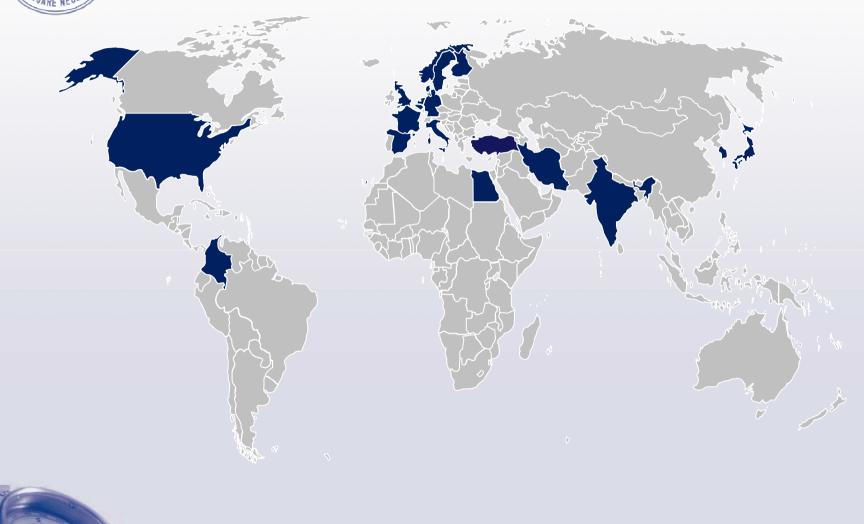
- 4 Alternate
- 3 YP's
- 1 Chairman

And coming soon:

**Poland** 



# **MARCOM**





### **Professional Profile of MarCom members:**

- Public Administrations within the Port sector
- Port Authorities
- Specialized Technological Centres (Public and Private)
- Consultants and Engineering Companies
- Dredging Companies
- Construction companies
- Navigation Authorities





#### **Commission members:**

- National Sections can designate:
  - 1 Representative
  - 1 Alternate
  - 1 Young Professional
- Term: 4 years + 2 x 4 years + 4 years (should be approved by ExCom)
- Chairperson: designated by the Council
  - Term: 4 years + 2 x 4 years (ExCom)
- Vice-chairperson (Commission and ExCom)
- Secretary (Chairperson)



### Main activities of PIANC Technical Commissions

- Execute parts of the Strategic Plan
- Generate, manage, coordinate and supervise Working Groups
- Propose subjects for Congresses and Conferences
- Take initiatives to produce articles for the Magazine "On Course"
- Report on its technical and non-technical activities (web, PIANC Yearbook, "Sailing Ahead",...)
- Implement agreements of PIANC with Sister Associations
- Oversee projects carried out by experts
- Participate in relevant internal and external conferences, seminars, workshops, debates, etc.
- Seek funding for PIANC activities
- Advice PIANC President and General Secretariat

**Charge sub-Commissions or Task Groups with specific tasks** 



### **Specific Activities of MarCom**

- Deal with Maritime Ports and Seaways issues
- Cooperate with other Commissions in topics of common interest (inland or recreation navigation, environmental issues, etc.)
- Cooperation and communication with other international organizations as:
  - IMO
  - IAPH
  - WODA
  - Etc.





### **MarCom Meetings 2012:**

- Brussels PIANC HQ January 31<sup>st</sup> and February 1<sup>st</sup>.
- Wilhelmshaven Germany on September 20<sup>th</sup> and 21<sup>st</sup>, followed by a technical visit to the new deep water container port in Wilhelmshaven "JadeWeserPort"

### **MarCom Meetings 2013:**

- Brussels January 29<sup>th</sup> and 30<sup>th</sup>
- Sendai Japan on September 11<sup>th</sup> and 12<sup>th</sup> followed by a MarCom Seminar in Tokyo (September 13<sup>th</sup>)

### **MarCom Meetings 2014:**

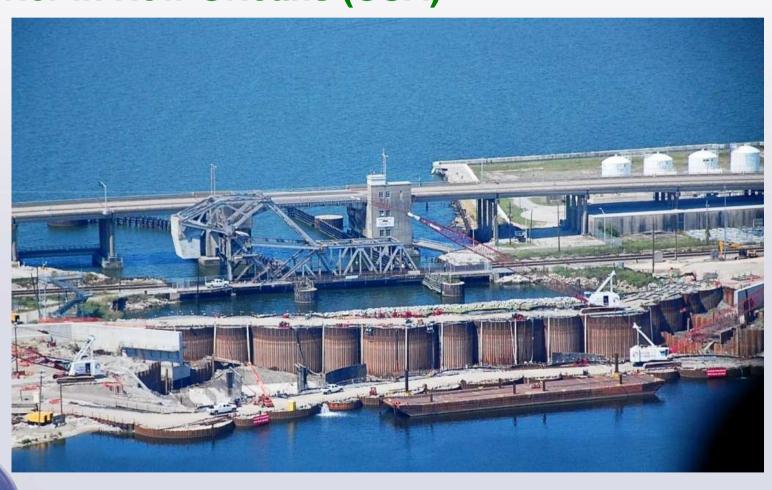
- Brussels, February
- Probably Venice (Italy), September

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Topics usually addressed in MarCom metings

- Report on general PIANC news and issues
- MarCom composition
- Follow-up of Action Plan derived from PIANC Strategic Plan
- Working Groups:
  - Analysis of the status
  - Presentations of ongoing WG's
  - Discussion of interim or final draft reports
  - WG's in formation
  - New Terms of Reference for WG's
- Cooperation with other Commissions and Sister Associations
- Other MarCom issues:
  - Improvements on WG management process
  - Future areas of activities
    - ....and many more issues

Technical Visit September 2011 : Hurricane Surge Barrier in New Orleans (USA)





Technical Visit September 2012: Deep water container Port in Wilhelmshaven (Germany)





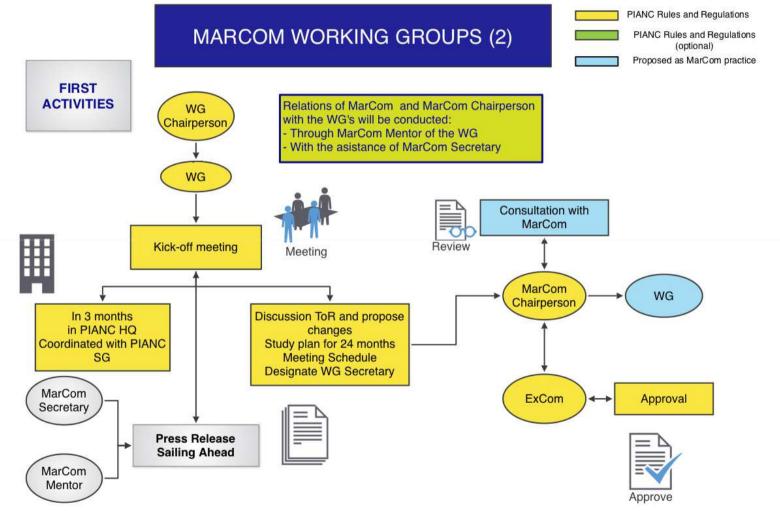
# PIANC Plance Piant Pian

- Members (Experts designated by National Sections):
  - 1 Representative
  - 1 Alternate
  - 1 Young Professional
- Working Group members can be:
  - Individual PIANC members
  - Employees of Corporate members
  - Member of Sister Organizations
  - Invited experts
- Possibility for Corresponding members
- Chairperson appointed by Chairperson of supervising Commission
- MarCom mentor

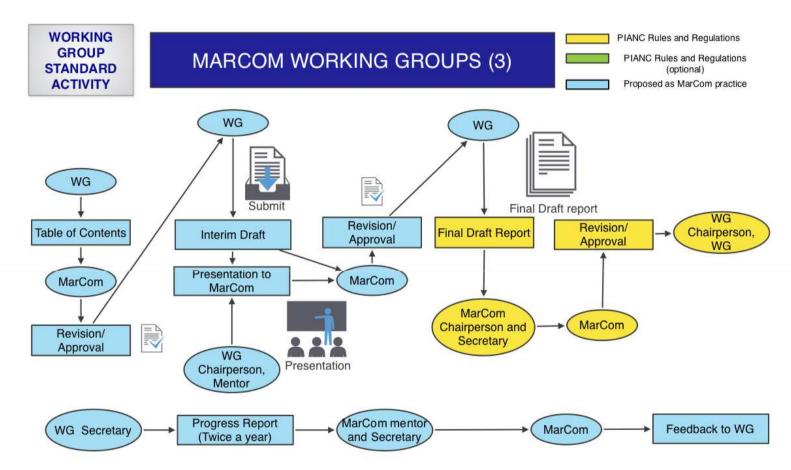


#### MARCOM WORKING GROUPS (1) **PRELIMINARY ACTIVITIES** Consultation with MarCom Brainstorm Meeting MarCom National MarCom ExCom Chairperson Sections Size of the WG Terms of Designation of ToR approval Designation of Reference Members Chairperson Appointment of MarCom Mentor PIANC Rules and Regulations PIANC Rules and Regulations Proposed as MarCom practice MarCom Letter to WG Secretary Chairperson Letter

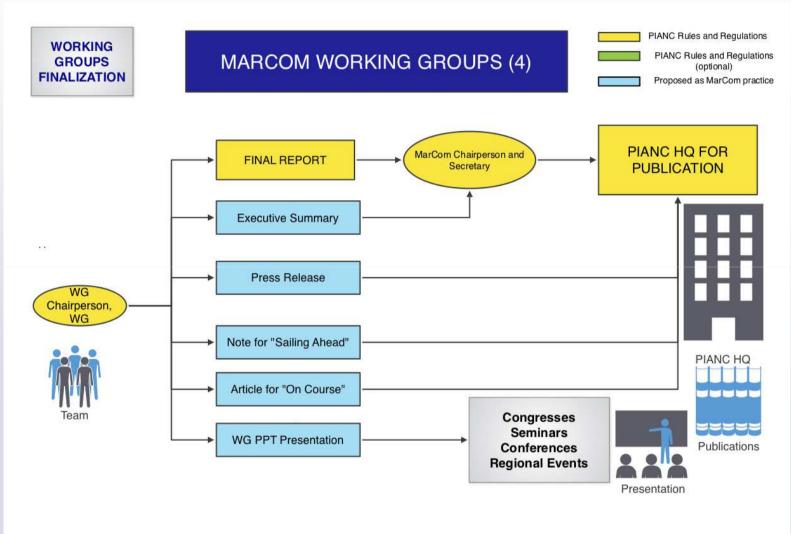














## **MARCOM**



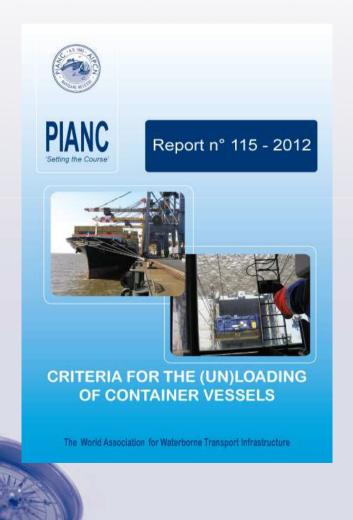




Associations: IAPH, FIB (Fédération Internationale du Beton – The International Federation for Structural Concrete)



## WG-reports published in 2012 - 2013



#### MarCom WG 115

(WG 52) 'Criteria for the (un)loading of

Container Vessels'

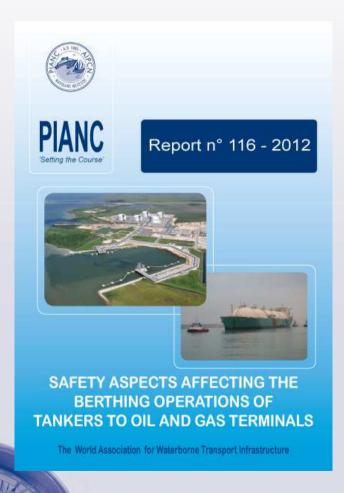
(Chairman: Mr Mohns)

# MarCom WG 115 Criteria for the (un) loading of container vessels

- Set updated criteria for maximum allowable movements taking into consideration:
  - Increasing vessel size
  - Use of more exposed locations
- Factors affecting (un) loading efficiency
  - Ship motion driving factors
  - Container ships characteristics
  - Ship mooring
  - (Un) Loading process
- Development of motion criteria associated to efficiency levels
- Application of motion criteria



## WG-reports published in 2012 - 2013



#### **MarCom WG 116**

(WG 55) 'Safety aspects affecting the berthing operations of Tankers to Oil and Gas Terminals'

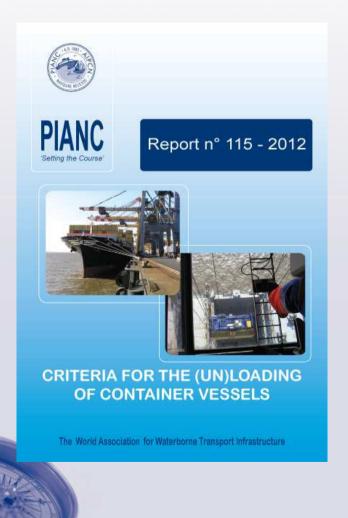
(Chairman: Mr Thoresen)

# MarCom WG 116 Safety aspects affecting the berthing operations of tankers to oil and gas terminals

- Safety management and risk assessment applied to port transit, towage, pilotage and passage planning
- Environmental conditions and forces
- Transit from open sea to terminals (approach channels, tug assistance, clearances, manoeuvring areas, locks,...)
- Berthing and mooring systems
- Space for safe berthing
- Acceptable metocean conditions for safe(un) berthing
- Operational safety
- Nautical port information
  - Ship characteristics



## WG-reports published in 2012 - 2013



#### **MarCom WG 117**

(WG 54) 'Use of Hydro/Meteo information for Port Access and Operations'

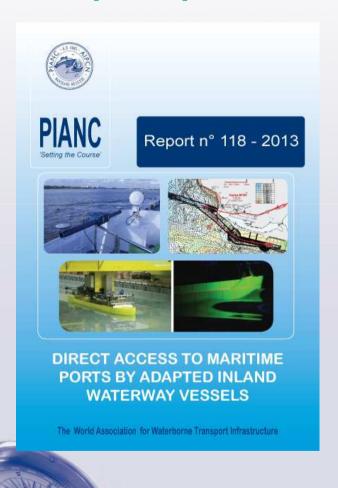
(Chairman: Mr O'Brien)

# MarCom WG 117 Use of Hydro/Meteo information for Port Access and Operations

- Hydro/Meteo system requirements for various end-user needs:
  - Vessel access
  - Anchorage
  - (Un) Berthing
  - Offshore moorings and terminal operations
  - Search and Rescue, spill control
- Systems for measure, acquisition and management of Hydro/Meteo data (reliability and accuracy)
- Recommendations on the use of the information for the various end-users
  - **Case Studies**



## WG-reports published in 2012 - 2013



#### **MarCom - Incom EG 118**

'Direct Access to Maritime Ports by adapted Inland Waterway Vessels'

(Chairman: Mr Caude)



# MarCom-InCom EG 118 Direct Access to maritime ports by adapted inland waterway vessels

- Case Studies in Europe, U.S.A. And China
- Methods use to improve safe access:
  - Wave and wind analysis and environmental forces
  - Evaluation of restricted seaworthiness of inland vessels in maritime area, risk analysis for the vessel
  - Practice analysis
- Recommendations





## WG-reports published in 2012 - 2013



Report n° 120 - 2013









**INJECTION DREDGING** 

The World Association for Waterborne Transport Infrastructure

MarCom WG 120

WG 51 'Injection Dredging'

(Chairman: Mr. Smits)



MarCom WG 120 Injection Dredging

Inject water (low pressure)



Fluidize top sediment layers



Create density flow over the bottom



Sustainable relocation

- Theoretical analysis and physical principles
- Natural boundary conditions required
- Typical applications:
  - Maintenance dredging
  - Shallows in sandy rivers
  - Cleaning of locks, jetties and pipelines
  - Levelling of hopper tracks and trimming of slopes
- Available equipment
- Environmental considerations
- Monitoring (operational, contractual and environmental)
- Contractual considerations
- Case Studies



### WG-reports expected to be ready for publication in 2013:

Publication "Tsunami Disasters in Ports due to the Great East Japan Earthquake" (Ready in HQ)

WG47 'Criteria for the Selection of Breakwater Types'

WG48 'Guidelines for Port Constructions related to Bow Thrusters'

WG49 'Harbour Approach Channels Design Guidelines'

WG135 'Design Principles for Container terminals in Small and Medium Ports'

WG144 'Classification of Soils and Rocks for the Maritime Dredging Process'





#### Other active WG's in 2013:

WG145 'Berthing Velocities and Fender Design'

WG152 'Guidelines for Cruise Terminals'

WG153 'Recommendations for the Design of Marine Oil Terminals'

WG158 'Master Plans for the Development of Existing Ports'

WG159 'Renewable Energy for Maritime Ports'

EG160 'Overview of Design Codes and Guidelines for Harbour Structures'

WG161 'Interaction between Offshore Wind Farms and Maritime Navigation'

WG162 'Recommendations for Increased Durability and Service Life of marine concrete infrastructure'

(G165) 'Design and maintenance of Container terminal Pavements'



#### **WG's in formation:**

WG164 'Upgrade of Port terminals by increasing dredged depth'

WG167 'Design of Terminals for RoRo and RoPax vessels'

WG 171 'Ship Handling Simulation dedicated to Channel and Harbour Design'

WG 172 'Design of small and medium LNG Terminals including bunkering facilities'





### **Co-operation with other Commissions:**

- Permanent Task Group on Climate Change (PTG CC)
- Working with Nature
- Working with Nature Awards (EnviCom)
- InCom (WG156): 'E-Navigation for Inland Waterways'
- InCom (WG155): 'Ship behaviour in Locks and Locks Approaches'
- InCom (WG140): 'Semi-Probabilistic Design Concept for Inland Hydraulic Structures'
- EnviCom (WG136): 'Sustainable Navigation'
- EnviCom (WG150): 'Green Ports, a practical guide for a sustainable seaport'
- RecCom (WG147): 'Guidelines for Facilitation and Integration among Recreational, Fishery and Commercial Navigation'



